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ABSTRACT

The report is a general multidisciplinary survey of current areas of interest in the field of gerontology, especially those having to do with retirement and the provision of social security. Chapter 1 discusses social security as an issue in gerontology and the concern of social security with retirement and aging. Chapter 2 discusses the "Third Age," and deals with problems which older people encounter. Chapter 3 discusses the differences between the life spans of men and women and the causes behind them. Chapter 4 discusses the statistical data on demography which is available and that which is needed. Chapter 5 deals with the significance, characteristics, and history of retirement, role changes, social security benefits, and the retired and defense of their interests. Chapter 6 discusses the particular effects of inflation on the older generation. Chapter 7 discusses the interaction of the elderly with their younger fellow citizens and the "disengagement" controversy. Chapter 8 discusses man's relation to his work and occupation. Chapter 9 discusses the meaning of functional age and whether or not it can replace the concept of chronological age. Chapter 10 discusses improvements in somatic health, problems of stress, and their relation to the "disengagement" controversy. An index to the document is included. (Author/JR)

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Human Ageing and Retirement

by

H. A. Rhee

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General Secretariat
INTERNATIONAL SOCIAL SECURITY ASSOCIATION

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Some Reflections on
Contemporary Gerontology and its Relevance to Retirement Policy

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FOREWORD

The International Social Security Association has been interested, ever since its inception almost half a century ago, in problems facing the elderly and the old.

Over the years, General Assemblies and different Committees have considered on various occasions some of the needs for social security of men and women at these ages. But such consideration was confined mostly to questions of social provision for specific risks: ill health, loss of income (pensions), needs for services, etc.

It was not until the XVII th General Assembly, four years ago, that more general consideration of social security for the elderly and the old stood as a major item on the agenda of a (three-yearly) General Assembly of this world-wide Association of social security institutions, now numbering 230 affiliated members and 83 associate members, covering well over 500,000,000 people in more than a hundred countries.

To mark the importance the Association attached to humane and just solutions of problems facing this increasing part of the population the General Assembly of 1970 chose this subject as the central theme of its deliberations.

In a short preliminary report on "Social Security of Old Age Pensioners" to that Assembly, Mr. A. Saxer, formerly Director-General of the Federal Social Insurance Office of Switzerland, had drawn attention to demographic changes that impelled searching attention to the needs for social security of people in these age groups and listed questions of coverage against specific risks.

The Bureau of the I.S.S.A. decided, as a result of the very great interest shown by that Assembly, that the study of the diverse aspects of the subject needed to be intensified and entrusted the Association's Secretariat with determining the best way to do this. It was clear that the time was coming when social provision for people above normal working age required to be studied in broader perspective, taking full account of wider biological as well as social issues.

The Secretary-General of the I.S.S.A. wishes to express his thanks to the competent authorities of the I.L.O. for having seconded the author to serve with the I.S.S.A. Secretariat and having thus made this interesting study possible, and to the World Health Organization for giving the author access to their excellent collection of reference material. Gerontologists, geriatricians, specialists in many fields of study whose ideas have contributed indirectly to this work are too numerous to mention here individually. Their names are to be found in the book and in the Index.

Special thanks are due to the author for presenting in a scholarly way but clearly and simply a global picture of the challenging problems of human ageing and retirement. He deserves credit for having analysed critically in this volume a considerable amount of relevant writing and adding to this ideas of his own but, above all, for keeping the ageing human person firmly in the centre of this study.

As a preliminary to better social provision for men and women past middle age factual information is required as to their health, their economic circumstances, their social integration in society and their needs and desires. One of the main purposes of entrusting a study such as this to a behavioral scientist was to raise questions and to show where there are gaps of knowledge and differences of views.

The author has therefore, rightly, not overloaded this study with figures and detail, but asks basic questions - many of them questions on which much more work will be needed to find answers. Chapter 10 shows how little is known about states of health of elderly people and about causes of their ill health.

There are widely diverging views as to the need of many elderly people to engage in satisfying and rewarding activity when they are past the age when they first become entitled to pensions of various kinds, as is shown in Chapter 8 and elsewhere. There can however hardly be any doubt that issues such as this need to be widely and fully discussed by people looking at them from different angles.

The study as a whole and the various separate but related issues raised for further thought and action merit wide attention and discussion. While giving the author access to the Secretariat's reference material he was left entirely free to present the subject as he judged best. For opinions expressed and emphasis given to the wide range of issues discussed in the following pages the sole responsibility is of course the author's.

It is hoped that this book may contribute to bring about concerted joint efforts of all those interested in healthier human ageing.

L. Wildman
(Secretary-General)

Introduction

Human ageing is associated in the first place with biological processes. Retirement is characterised primarily by changes in the economic and financial and also in the social and psychological status of the retired man or woman. Both types of change, those of ageing and those of retirement, affect however not only the individual but the society in which he lives. Moreover, in both cases, in that of ageing as well as in that of retirement, the phenomenon not only affects society but is largely affected by it.

Pathological and physiological changes in the individual (thought to be) associated with ageing were studied and treated in the past sometimes without much reference to social causes and implications.

Similarly, measures for retirement and provisions for the retired have tended sometimes to be designed and applied without much consideration of inter-related biological changes of human ageing.

The two groups, the older people and the retired, are of course distinct. Many older people are not retired, many retired people are not "old". While therefore these two groups of people do not coincide they overlap very largely in the contemporary industrial mechanised societies and the increasingly automated societies which are evolving at present. It is with ageing and retirement in these social structures that we are mainly concerned in this study.

Ageing and retirement, the inter-relationship between older people and their environment, raise many questions; and these have been looked at from diverse angles: economic, financial, pathological and physiological, social, sociological, psychological, demographic, actuarial, statistical and (perhaps least of all) human, to name but a few.

To frame accurately the specific questions and, still more, to find satisfying solutions to them close collaboration of many disciplines is required, many of them disciplines of the exact biological sciences and various branches of medicine, many in the area of social and human studies, and perhaps philosophy, ethics, theology, law, education and architecture. The list is not exhaustive and the sequence here is not significant.

The principal questions of ageing and retirement have to be settled ultimately by the community as a whole. And the community is bound to look for guidance from the various academic specialisations, and from others in such fields as nursing, social insurance and security, social work, town and country planning and many more.

Academic disciplines and also the professions have each tended to evolve their own distinctive approach for looking at selected phenomena, their own analytical concepts, their own esoteric terminology - often acceptable, or even intelligible only to a particular "school" within a given specialisation or profession, very often largely incomprehensible to those in another specialisation, and still more so to the general public. The reasons for this trend are not far to seek. Indeed, it is not necessarily to be deplored. But it can lead to isolation of particular fields of research and application, an isolation of which those within the particular specialisation may not even be aware.

Both, human ageing and retirement are subject areas which call for contributions from many established disciplines and fields of study and research. Progress can be retarded therefore, or even impeded by lack of communication.

In social security it has been recognized increasingly that those concerned with social security as a whole, or with particular branches of it, or with specific types of contingencies have frequently to look outside social security for answers to questions that face them. Paradoxical though this may seem at first sight it is indeed inherent in the very nature of social security.

To a limited extent this applies to the practitioners who administer social security. They administer sets of well defined rules, regulations, statutes - in each case an administrative and legal framework based on often only tacit assumptions, but in any case assumptions which may become obsolete. The frame within which administrators work leaves them none the less generally a a certain limited latitude of discretion. Or, in their day to day work, administrators of social security discover occasionally facts which may lead to questioning some of these underlying assumptions. The questioning itself is of course not the administrator's responsibility.

The need for looking beyond social security for answers to questions within social security becomes the responsibility of those concerned with research into social security policy and with the underlying philosophy of social security - including , in the last resort, the general public. For the concepts of social security are not immutable. They require reappraisal in changing social circumstances and in the light of advances in the exact sciences as well as in social studies.

This applies particularly in regard to retirement and pensions, i.e. in the area of the social assumption of responsibility for economic and other well-being of growing numbers of retired, ever less "old" people for whom society accepts responsibility. Increasing public discussion of poverty and its prevention, discussion of the changing concept of "work", discussion of the allocation of limited means to seemingly boundless demands on the resources of society in general and on those of social security in particular, say in the field of ill health of older people, has brought and kept concern with human ageing in the forefront of the preoccupations of social security.

Similarly, practitioners and students of gerontology have found increasingly that they too need to look beyond the physiological descriptions and investigations into problems of healthy ageing, their central preoccupation. Many of them have found that they need the perspective of the social framework within which the questions of ageing arise.

There is as yet little meeting ground of these two areas of concern with ageing people: social security and gerontology. There are here and there ferries across rivers of incomprehension, but few firm bridges to carry constant traffic of ideas.

Both, questions of human ageing and questions related to retirement are not disciplines in the traditional sense but rather problem complexes or problem areas consisting of clusters of problems of a more specific kind which call for the joint contribution of a number of disciplines and professions. Such joint effort should then make it possible to put some of the more specific groups of problems in the form of questions. Tentative lists of such questions would serve the purpose of establishing what is already known and generally accepted; other questions resulting from such joint study may help in guiding research and giving the questions an order of importance. Theoretical research without empirical testing is less important than empirical testing of not yet tested but promising theories.

It is sometimes argued that this calls for an "inter-disciplinary" approach, implying thereby that an "inter-disciplinary" or "multi-disciplinary" approach leads to truth emerging from the clash of ideas: "Du choc des opinions jaillit la vérité", as a French saying has it.

In regard to problems of ageing such multi- or interdisciplinary approaches have in fact been experimented with in gerontology, a subject to which we shall have to refer in somewhat greater detail below. Experiments with inter- or multi-disciplinary approaches have been tried also in other problem areas. Often not with great success. For both these approaches may be bracketed together as a "bookbinding" or "railway junction" type of approach. Often no real joint discussion is possible. Each specialist representing a different discipline contributes to a symposium or compilation of papers. Experience seems to suggest that this method usually does not lead to, perhaps cannot lead to a joint endeavour to come to grips with the problem. Presentations by different disciplines and professions may cross each other's paths without however facilitating real communication. The next stages, the "cross-disciplinary" or "trans-disciplinary" approaches have had little opportunity of being tested. Where they succeed they may lead to worth while syntheses. In such cases, the success of the techniques lies in drawing jointly on the various disciplines, perhaps even merging disciplines to see a broad problem, while maintaining an attitude of sceptical common sense, both towards those theories which try to explain too much and towards proposals for reform that are overambitious.

In this book we will look a little more closely first at gerontology and its increasingly interdisciplinary character. The purpose will be to see to what extent issues of social responsibility for ageing people have a place in it. Next, three aspects of ageing will be considered which are clearly of concern to gerontology as well as social security: Who is "older" and what is the meaning of age, factors determining the life span of men and women, and some demographic background data that seem relevant to both ageing and retirement.

Against this background, we can then proceed to look at some issues of retirement and protection against poverty and need, at central issues and trends concerning pensions and services, matters clearly of prime importance to social security and social policy, to see the extent to which they are entering also into the field with which general gerontology is concerned. These issues are discussed at rather greater length.

This seems to lead logically to five issues affecting the older: inflation and taxation, the relationship of older people with each other and with the younger in the community - often referred to interms of the much disputed "disengagement theory", man's relationship to work and occupation, functional (as against chronological) ageing, and questions of health and ill health, notably the possibilities and cost of preventing the latter.

The idea behind this choice and arrangement of subject matter is to make it possible to see how much common ground there is for these two subject areas: gerontology and social security.

Both terms are scarcely more than a generation old. At least, as fields for systematic study and purposive action both have developed only since the fourth decade of the present century. Both are new names for human aspirations that have their roots in a distant past: to keep older people well, and to share responsibility for doing so - to put it in simple, perhaps rather oversimplified form. In each case, a variety of definitions exist but, on the whole, each is better described than defined. And this has the additional advantage that we can thus escape much of the sterile exercise of definition. In the terminology of these two subject areas there is much that has still a certain fluidity. This is attributable no doubt partly to the interdisciplinary character of these problem areas, and also to differences in institutional settings.

The procedure followed in this study aims at discerning common ground but also at finding issues and questions already largely resolved (however few they may be) and questions urgently needing further empirical and analytic study.

The reflections of which this book consists are an unpretentious attempt to put together an initial framework as a basis for further thought. It is clear at the outset that many facts are lacking about human ageing, and also about retirement of people from their "work" and the protection they want and need.

Many things one would like to measure are hard to measure. Contrariwise, on some aspects in some places, quantities of data and statistics exist - information hitherto unused: some hard to interpret and use for want of comparable material. Some lies unused because no one has yet troubled to analyse it.

This has been an encouragement to set down these reflections. They are not based on primary data gathered by the present author. That is inevitable in a subject of this kind. Even if it were possible it would be much too narrow a base.

We attempt in this book not so much to put forward ideas that have a claim to originality as to take the work of others a little further. For what results from this, clearly no one other than the present author should be held responsible. Primary data collected by others are referred to below and bibliographical references given. The volume of writing in both fields is considerable. Bibliographical references are given only where it seemed necessary, so as not to lengthen this book unduly. Many of the sources quoted provide of course details of much additional source material.

However, in the words of a distinguished Nobel prize winner in science,

> "... there is an enormous discrepancy between the number of scientific works which are printed and the number which have any real influence on scientific development."

If this is true in biology and medicine it will apply even more in the less exact disciplines. In both, objective and correct evaluation becomes possible often only very much later, not infrequently only when the problem is solved.

To choose from empirical micro and macro studies, descriptive and analytical material, what seems significant implies inevitably some degree of subjective judgement. Awareness of this fact has led the author to try to be objective in the selection of such material and, where conclusions are drawn from it, to say explicitly whether they are those of the present author or conclusions arrived at in the source quoted. While every attempt has been made, therefore, to be reasonably objective in this study it goes without saying that the present author alone assumes responsibility for the book. At the same time we acknowledge our debt to all those who by painstaking empirical research and analytical thought have formulated new ideas for the first time. Sometimes unconsciously one presents their ideas as if they were one's own - perhaps the greatest tribute one can pay them. The book attempts a general picture of the questions referred to, in the hope of stimulating their further discussion and consideration, to be reflected, perhaps later, in a less tentative and also more comprehensive study.

H.A. R.
Geneva, March 1974

Gerontology

Development of Gerontology. Increasing Concern with Social Issues, including Social Security of older People

Social phenomena such as concentration of people in urban agglomerations, industrial development, lower birth rates, "ageing" (as it is sometimes somewhat misleadingly called) of population and the trend to downward social mobility of older people have modified the conditions of ageing in the sense of creating conditions of dependence [which often take the form of rejection] to which social security has had to respond. Social security in its care for the retired and for the older sick people has had to deal with symptoms. It has had to devise practical measures - often piecemeal - to alleviate conditions of morbidity, senescence, senility, isolation and helplessness, conditions that should not arise in physiological - as distinct from pathological - ageing.

Social phenomena such as these have also created a no-man's land - problems greater than is often admitted - dealt with sometimes by transferring responsibility for its management from place to place in the hope that it may go away. *

The rapid evolution of science and technology disqualifying - so it is often said - the older from acting as guides and counsellors to the younger creates problems not only for the health of older people but also economic problems for which social policy and social security and administration have had to devise measures.

If we describe a "problem" as any difficulty which ceases to be completely elusive, having been analysed by appropriate concepts, we can then see that, while ageing has always meant facing difficulties, it has only in relatively recent times raised problems.

The segregation of age groups and the consequent greater isolation of older people in contemporary urban society, at which we shall look somewhat more closely below, is a subject which must concern social security as indeed gerontology. **

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* Cf. Ehrlich, (Dr.) F.: "The Psychogeriatric Problem." in, "Australian Journal of Social Issues" (Sydney) 7, 1 (1972) pp. 48-55.

** The point is made by a number of gerontologists. For a simple presentation, cf., e.g. Philibert, M.: "Historical and Theoretical Perspective on Current Developments in Social Gerontology." in, Proceedings of the 8th Internat. Congress of Gerontology, Washington, D.C., Internat. Gerontol. Assoc., 1969, vol. I, pp. 23, ff.

This is perhaps rather well summed up in the often quoted phrase:

> "Il faut faire face aux problèmes physio-pathologiques et sociaux de la vieillesse afin de réajouter non seulement des années à la vie mais aussi de la vie aux années." (The physio-pathological and social problems of old age need to be faced in order not only to add years to life but also life to years.)

By the simplicity of its expression this saying sums up the essence of the subjects of gerontology and social security for older people.

It is often not easy to trace back to their origins such telling and often quoted dicta. It is significant that this one was used at the very first international congress of the International Gerontological Association, in 1950. * It is often affirmed that the impetus to the rapid development of gerontology came from physiology and pathology. And it did undoubtedly, in the main. Interestingly, there is therefore here one small indication that awareness of the social aspects of ageing was present already among the almost entirely medical participants at the very first international gerontological congress ever held. (There are other indications of this, as we shall show below.) That the second, and last, part of the phrase was quoted also by Mr. A. Saxer in his report Social Security of Old Age Pensioners to the XVII th General Assembly of the International Social Security Association (Cologne, September 1970) **, is not without significance - though he omitted the reference to the physio-pathological problems of ageing.

A significant link between the social and medical aspects of ageing is perhaps to be found in the development of social and preventive medicine.

Gerontology itself - "the scientific study of the phenomena of normal ageing" *** - represents perhaps a somewhat more modern approach to ageing than geriatrics, the branch of medicine concerned with prevention and treatment of diseases of older people. Curiously therefore perhaps, the term "gerontology" was first used in 1901 *, that is eight years earlier than "geriatrics" ** which has been described as being older than medicine itself. While there exists as yet no full history of gerontology, there are several of geriatrics, a subject that may be described as the fight against "a tremendous range of diseases which cripple, invalid and kill from middle age onwards". *** Lüth, in his very comprehensive history of geriatrics - which includes much that we would now put under the heading of gerontology - observes that one might say that every cure, every contribution to recovery, in so far as it extends human life was in fact geriatrics. Without pressing this point too far it is indeed arguable that the search for keeping old people vigorous is older than medicine itself. +

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* Cf. Barbera (Dr.) L. in, "Proceedings of the 1st Congress of the International Gerontological Association. Liège 10-12 July, 1950." in, "Revue Médicale de Liège" (Liège) 5, 20 (October 1950) p. 716

** Geneva, International Social Security Association, 1970 (ISSA/XVII/II) p. 6, where it is raised in the context of insurance against invalidity and the right of old age pensioners to be employed, in the economic sense.

*** Though advancing age is accompanied by biological impairments, compensatory devices can maintain effective behaviour into advanced age, "... investigation into these as yet unmeasured and little understood inner resources over the entire life span is the goal of research in gerontology," in the words of N.W. Shock, one of the leading gerontologists of our time.

In different civilisations and at different periods older people's status has varied greatly. It ranged at one extreme, from age being identified with wisdom and greatness, reflected by gerontocracy - mostly in situations where tradition was handed on at first only by word of mouth - where old men were expected to govern and rule through senates and oracles (such as that at Delphi where seven wise men constituted an advisory council). In some civilisations the old were revered as tribal leaders, religious seers and healers. It is believed that the Aztecs and Incas had devised systems of social security for their old people.

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* The term "gerontology" (from Greek γέρων =old man) is believed to have been used first by Dr. E. Metchnikoff (born at Kharkhov in 1845, died at Paris in 1916; was awarded the Nobel prize in medicine, with Ehrlich, in 1908). He was essentially a bacteriologist, became interested in senescence from the angle of degeneration of organs, in the pathological sense, rather than in gerontology as it is understood to-day. It was his pupil Korenchevsky, who is referred to below, who widened the concept.

** The term "geriatrics" (from Greek γέρας =old age, and ἰατρική =the art of healing) was coined by Dr. Ignatz Leo Nascher (born at Vienna in 1863, died at New York in 1924); cf. his article, "Geriatrics: The Diseases of Old Age and their Treatment, including Physiological Old Age, Home and Institutional Care", in, "New York Medical Journal", 90 (1909) p. 358, ff., and his book with the same title, published at Philadelphia by Blakiston in 1914 (517 pages). Nascher's interests were mainly but not entirely clinical. Later emphasis on the social and preventive aspects of illness in the elderly makes the dividing line between geriatrics and gerontology less clear cut. Cf. Anderson, W.F.: "Modern Geriatric Practice", in, Proceedings, 8th Congress, International Gerontological Association (Washington, D.C., 1969) vol. I, pp. 15-18.

*** Bourne, G.H., in the preface to Korenchevsky, V.: Physiological and Pathological Ageing. Basle and New York, S. Karger, 1961. p.1.

+ Lüth, P.: Geschichte der Geriatrie. 3000 Jahre Physiologie, Pathologie und Therapie des alten Menschen. Stuttgart, Enke, 1965; and Figallo-Espinal, L.: "A Contribution to the History of Gerontology", in, "Gerontologia Clinica", (Basle) 14, 5 (1972) 257-66.

Respect and strict obedience towards elders was held to be a religious duty among the ancient Chinese. At the other extreme, we hear of tribes who had little or no use for the old whom the younger had to feed and who were rogarded as a burden to be carried by the active workers of society. In some civilisations - if that is the right word - we hear of geronticide. Some primitive peoples did old people to death by exposing them or burying them alive when they became useless for work and incapable of helping themselves.

Both traditions survived into modern times. In some countries, not so long ago, guardians of the poor rate pursued sons half way across the country to make them contribute to the keep of their indigent parents. As a complement to this, and to show that the other tradition did not disappear either, one might cite the not unfamiliar syndrome of retired business men and functionaries being given advisory positions after retirement in business or offices where they had previously ruled supreme. It would be a not altogether unrewarding exercise to demonstrate the ambivalent attitude of society towards the older members of it in our own times, and to try to trace each manifestation of it to its origins.

In regard to health, many of the writers of the ancient world wrote about problems of old people, Homer, Hesiod, Pindar, Aristophanes, Thucidides, Plutarch, Plato, Aristotle, Aeschylus, Sophocles, Euripides, Cicero, Seneca and many others. An ancient vase is to be found in the Louvre at Paris depicting one of the labours of Hercules, and bearing the inscription "Hercules defeating Ageing". It might well serve as an emblem and a motto for modern gerontology and social security for the retired.

Among those who wrote about the problems of ageing and health in antiquity, two require special mention because the basic ideas of their teaching survived through many centuries into our own age. Their ideas have had a profound influence on modern attitudes to age, Hippocrates (460-377 b.C.) - who described with remarkable scientific precision many of the diseases of old age and recommended cures, diets and modes of conduct for each - and Galen, a physician of the second century a.D. Much of what is now known as gerontology was referred to by the latter as "geromikon" (from Greek γηροκομικός = he who takes care of an old man) the avoidance of early death. It was Galen who first distinguished between pathological, or sick ageing on the one hand, and physiological, or normal ageing on the other, an essential antithesis made in modern gerontology still. There is much in his writings that will strike the reader as remarkably modern.

He considered that ageing, while it could not be avoided, could be postponed by following certain rules of physical and mental hygiene which he elaborated. He was perhaps the first to note that ageing is by no means necessarily related to advanced old age, thus differentiating between the "old young" and the "young old", a theme which was revived many centuries later. *

In the middle ages, while medical care for old people progressed relatively little, and libraries and scientific books were scarcer than they had been in classical antiquity, hospices, infirmaries, "béguinages", almshouses and the like were built by the Church,** and guilds of craftsmen took care of their older members and their families when they needed help. But in the xv and xvith centuries we find also a hardening of attitudes to old age. ***

In the later development of interest in ageing, perhaps three landmarks should be singled out to be looked at because they give us a better understanding of approaches to ageing in our own time. First, the change which occurred in the late xviii and early xix century, mainly of course in medicine, from prognosis to diagnosis. Weighing and measuring took the place of intuition and simply following old prescriptions. Emphasis was put increasingly on prophylaxis and prevention as a means for prolonging life - rather than merely trying to cure diseases. +

This can be related at least partly to the development of the exact sciences, notably physiology, comparative anatomy and genetics. This phase is characterized by a changed attitude to health, first of course on the part of the medical profession, namely that knowledge and understanding must precede efforts of dealing with and curing ill health.

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* Cf. Tsoukas, A.: "The Founders of Gerontology and Geriatrics", in, Proceedings, International Gerontological Association, 7th Congress, Vienna, 1966, publ.: Vienna, Wiener Medizinische Akademie, 1966; vol. 8, p. 641, ff. The subject is referred to in Chapter 9, p. 236, below.

** Summed up by: "Medicina ancilla theologiae"; cf. Lüth, P., op. cit.

*** Thus, Martin Luther observed that the reason why few reached the age of three score years and ten was their "immoderate style of life" (unmässige Lebensweise). Shakespeare had an extraordinary amount to say about the horrors of old age.

+ An example of this is the emphasis on preventive care for old people, to be found in the writings of Hufeland of Jena. He produced statistics, in 1796, showing that 50 out of 100 children died before their 10th birthday, another 20 between the ages of 10 and 20, ten people died between the ages of 20 and 30, five between 40 and 50, nine between 50 and 60, only 6 % lived to ages over 60. It was on Christopher Hufeland's initiative that the first "bank of corpses" was set up at Weimar. Also at his instigation an institution was founded to help impoverished sons of deceased doctors.

The second half of the xix century may be said to mark another phase in concern with ageing by a series of measures to improve public health and hygiene and by the foundation of a number of research institutes in these fields. Acts of parliament in various countries, and regulations applying them, marked advances in various sciences, especially in bacteriology, notably as a result of the work of pioneers such as L. Pasteur, R. Koch and their colleagues. This is shown in the progress of vaccination against exogenous diseases which had taken a wide toll among the elderly as well as the young. Again, a number of new sciences developed, without however at first sharp, watertight demarcation lines separating disciplines. This occurred later. This development in hygiene was accompanied by the beginnings of old age insurance - first in Germany, then spreading fairly rapidly. Great exhibitions, some largely, others entirely devoted to public health, mark this period. This second great landmark in concern for the elderly and the old followed logically from the first, by broadening the scientific base of medicine by methodical observation and experiment, and avoidance of dogmatism. The building of great hospices and hospitals mainly for the older members of the community - such as the Hospice de la Salpêtrière, where 2,000 of the 8,000 patients were older people, and the Hospice de Bicêtre, at Paris - falls somewhere between the first and the second of these phases.

What may be described as the third major phase in the development of concern with ageing is identified with the work of Dr. Vladimir Korenchevsky (b. 1880 at Petrograd, died 1959 at London) - now generally regarded as the "father" of modern gerontology.* The essence of Korenchevsky's work is best summed up by himself in his own comment on the difficulty of differentiating between physiological and pathological ageing:

> "Overwhelming evidence has accumulated of late to prove that in the present day old age is an abnormal pathological syndrome in which physiological processes of ageing are complicated and aggravated by various so-called degenerative diseases of old age."

From this he goes on to explain that it was then impossible - as it probably still is largely impossible now - to find a human being who aged physiologically, and whose old age, lifespan and death were physiologically normal. He noted the same difficulty in regard to experimental animals, because they suffer like man, from various latent infectious diseases, some of which became clearly developed in advanced old age. This drove him to the conclusion that direct investigation of physiological old age, in particular in man "... is impossible till the time when human beings age and die physiologically." *

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* "He [Korenchevsky] became in truth the father of gerontology, not simply in Britain but in the whole world." (Prof. E.V. Cowdry, President of the second International Congress, International Gerontological Association, 1951, at St. Louis, Mo.) In 1945, Korenchevsky established, with Viscount Nuffield's financial support, the Gerontological Unit at Oxford. He directed it until 1952, i.e. even after it was transferred to London - where it received support also from the CIBA Foundation. He continued to devote himself to the study of the problems of physiological ageing after he retired from the directorship.

Korenchevsky, who had started his career as a general and experimental pathologist, and was appointed professor in this subject at the age of 31 - became interested in preventive medicine and gerontology quite early, probably as a result of a single incident. In 1906, just after the Russo-Japanese war, he visited an infirmary for old people at Moscow. The state of the inmates shocked him. He felt that so much of what he saw in these people was pathology, and that it ought to be possible to permit man to age in a more gentle physiological way without the complications of disease.

He subsequently dedicated himself to the study of this problem. He was associated for a time with some of the great historical figures, Pavlov at Petrograd and Metchnikoff at Paris who, both affected his outlook on ageing.

The significance of Korenchevsky's work lies in the interest he germinated in gerontology all over the world. [illegible] founded in 1937 the Club for Research on Ageing, ** which, in 1945, became the British Gerontological Society.

When the first international congress of gerontology was held at his initiative *** gerontological societies had come into existence already in 14 countries - most of them represented at that congress, where there were 95 participants. This compares with four such societies existing before the second world war. In 1940 there was only one gerontological journal, the "Zeitschrift für Altersforschung", started by E. Abderhalden and M. Bürger in 1938. At the time of the 9th International Congress of Gerontology (Kiev, 1972) there were over 28 in 12 different countries. The first European chair in Gerontology was established at Paris, as recently as 1960; its holder F. Bourlière focussed his inaugural lecture on longevity and why people age.

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* Korenchevsky, V.: Physiological and Pathological Ageing. (publ. posthumously) Basle and New York, S. Karger, 1961. A book of encyclopaedic knowledge, it is perhaps the most significant among Korenchevsky's over 150 publications. It formulated rather than solved problems. It stands out to this day as one of the greatest contributions to gerontology.

** This, later changed its name to "Gerontological Society". By 1946, membership had risen to 80. An American branch of the Club was founded in 1938. It too changed its name to "Gerontological Society".

*** Korenchevsky was the founder of the International Gerontological Association and was unanimously elected life member of its governing council.

But, with all this rapid development of gerontology, the stress and the emphasis continued to be mainly on the medical aspects of ageing, even though demographic tables began to show the economic and social dimensions of the problems. These were no doubt both cause and effect of the considerable increase in research on ageing. But until the foundation of the International Gerontological Association, preoccupation with gerontology was primarily pathological, and to a markedly lesser extent physiological, preventive and social. If in the preceding reflections we have stressed the aspects which were not pathological this was to show that concern with ageing was never entirely pathological.

The broadening of gerontology, the trend towards greater stress of the social aspects of ageing may be identified with the development of the International Gerontological Association. Indeed it is this trend which marks perhaps a fourth landmark in the history of the concern with ageing, following the three which we have suggested above.

The first international conference on senility (Kiev, 1938) was still largely concerned with diseases and disorders of the elderly. Medical emphasis in gerontology predominated in the Kharkhov and Kiev schools of gerontology, associated with the work of A.A. Bogomoletz and, later, D.F. Chebotarëv, as it did in the United States, Britain, France, Austria, Switzerland, Romania, Italy, Australia, Canada and elsewhere.

In this new phase, which began around 1950, work continued to ascertain precisely the character of human, and indeed mammalian, ageing processes, in order to delay the onset of most, if not all, pathological states related to it - an aspect which Dr. Alex Comfort and others continue to stress.

At the same time, Dr. Nina Sachuk, at the Kiev Institute of Gerontology, and other mainly medically oriented research workers elsewhere, began to relate medical, physiological, hygienic aspects of ageing to socio-economic ones. Some highly interesting large-scale surveys were conducted in the Soviet Union. In her investigation of the social as well as the medical needs of 40,000 people aged 80 and over (i.e. the oldest age group) in the Soviet Union, Dr. Sachuk showed that the health of older women (who constituted in fact about 74 % of this age group) was worse than that of men. * Hypotheses were formulated but the causes remained largely unexplained.

Whereas the interdisciplinary element in the character of gerontology was inherent in the subject itself from the outset, the broadening of gerontology towards greater emphasis of social issues is noticeable. And it could be illustrated, no doubt by a detailed content analysis of the 9 international congresses that have been held till now. While a detailed content analysis of the vast amount of material presented is beyond our present resources, the trend becomes clear none the less even from the rough analysis attempted below by the present writer.

At the very first congress, the president, Professor L. Brull of Liège, while stressing the International Gerontological Association's primary aim: gerontological research, included in this the social health and social aspects. Indeed, Dr. J.A. Huet of Paris insisted at that congress on the importance of gerontologists being consulted on matters of social security affecting older people. At the end of that congress, the newly elected governing council of the I.G.A. stressed in a public statement, inter alia, the need for studying the social and economic implications of ageing "in view of the rise in the older segment of the population". It was then resolved also that the results of gerontological research should be communicated without delay to the governments so that they could be applied without delay.

At the second congress of the I.G.A., held a year later, ie. in 1951, at St. Louis, Missouri (which was attended by 800 delegates,-a very considerable increase in attendance as well as in the amount of research presented) the work of the congress was divided into four sections. One of them, that on economics and welfare was presided over by Wilbur J. Cohen, then Assistant to the Commissioner of the Social Security Agency of the United States Government. Another of the four sections

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* Sachuk, N.N.: "Experience of Mass Social and Hygienic Examination of the Oldest People in the Various Regions of the U.S.S.R.", in, Proceedings of the 8th Internat. Congress of the I.G.A., Washington, D.C., vol. I, p. 256, f. An even more recent and full summary of the research on ageing in the U.S.S.R. is contained in (in English) The Main Problems of Soviet Gerontology, issued by the Kiev Institute of Gerontology, on the occasion of the 9th Meeting of the I.G.A., at Kiev in 1972, by Ac. D.F. Chebotarëv, Director of the Kiev Institute, and now President of the I.G.A.

at that congress, which dealt with "sociology, psychology, education and religion" in relation to ageing was presided over by J. Havighurst. That section included aspects of work and retirement, attitudes of older people to work and needs for work, as well as health in relation to social factors among the topics discussed. At the 3rd and 4th congresses (London, 1954 * and Merano, Italy, 1957 **) this trend becomes increasingly clearer. Topics such as the social meaning of ageing were discussed even at the section on biological research. "Interdisciplinary topics" which constituted a separate section included social and social security subjects. Furthermore, at the fourth congress three permanent social science research committees were set up, one for Europe and two for America. They were to deal with research in social science, psychology and social welfare - all in relation to ageing, of course. The chairman of the European research committee was R.M. Titmuss, a well known authority on social administration and social security. Its secretary was P. Paillat, a specialist of demography of ageing. At the fourth congress, the sociological section dealt with 5 sub-topics, among them: the economics of ageing, work and retirement and the social impact of illness.

The fifth congress (San Francisco, U.S.A., 7-12 August, 1960 ***) was the first, and so far the only one of these congresses presided over by a practitioner of social security, L. Kuplan of Sacramento, California - who became later Adviser to the first (American) "White House Conference" on Ageing, in 1961. At that congress social and social security topics featured even more prominently in the first two of the four sections, viz. "social and psychological aspects of ageing" and "social welfare of the ageing". It was at this congress that Mr. S. Hydén, chairman of the Working Group on Old-Age Insurance of the International Social Security Association, and Director of the Swedish Federation of Accident Insurance Societies presented a paper on behalf of the I.S.S.A. "Basic Issues Regarding Levels of Living in Old Age" in which he raised a number of questions, fundamental to both social security and gerontology, to which reference is made below. At this (fifth) congress also the I.G.A.'s statutes were changed so as to give formal recognition to the greater emphasis on the I.G.A.'s research functions, including explicitly social research - the number of its research committees having been raised meanwhile to seven, four American and three European.

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* Old Age in the Modern World. Edinburgh and London, E. & S. Livingstone, 1955.

** Proceedings publ. by the I.G.A. in Italy and printed by Mattioli, at Fidenza, Italy, 1958. 4 vols.

*** Ageing Around the World. New York and London, Columbia University Press, 1962. 4 vols.

The sixth, seventh and eighth congresses (Copenhagen, August, 1963 [*]; Vienna, June, 1966 [**]; and Washington, D.C., July,1969 [***]) showed a continuation of this trend. The number of countries from where participants came stabilised at about 40.

The 9th congress, the most recent at the time of writing, took place at Kiev (2-7 July 1972)[+]; 1391 papers were presented to the four sections and a further 19 reports to the plenary sessions. The congress was attended by a very large number of delegates. Social aspects of ageing received much attention - notably of course in the section on the social studies aspects of ageing, which accounted for 27 per cent. of all papers presented at the congress, but also among the "interdisciplinary topics" which constituted over a third of all the papers. Work related to some social aspect of ageing came almost to outnumber that on clinical medicine of ageing and the biology of ageing. It should be hardly necessary to add that the various "aspects"of ageing cannot be neatly separated in this way.

There was wide agreement among the over 3,000 participants (from 41 countries) with the statement by Academician D.F. Chebotarëv, the President Elect of the I.G.A., at the closing session, that there was

> "...not a single considerable socio-demographic or socio-hygienic problem of human ageing which [had] not been discussed at the congress."

He referred also particularly to the efforts made to define the size and socio-economic implications of the demographic increase of the elderly in the world and to steps taken towards defining older people's needs for social help and care, and practical measures to meet them. [++]

A symposium on applied social research preceded the main congress and brought together those mainly interested in this aspect of gerontology. But this is a trend which, if continued and reinforced, might well replace contacts between gerontologists from different sciences and other studies, and could therefore tend towards severing again the tenuous communications so laboriously established between those specialising in different ways of looking at ageing. For example the trend towards increasingly earlier retirement, often put forward on economic and social grounds, should, in the opinion of many, be confronted with the view widely held among physiologists that vigour in later life depends largely on a longer working life - to give an example of an issue that requires the benefit of a joint approach and debate.

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[*] Hansen, P.F. (ed.): Age with a Future. Copenhagen, Munksgaard, 1964.

[**] I.G.A.: Proceedings of the 7th Congress, publ. Vienna Medical Academy, 1967.

[***] I.G.A.: Proceedings of the 8th Congress, publ. I.G.A., Washington, D.C., '69.

[+] I.G.A.: Proceedings of the 9th Congress, publ. Kiev Inst. of Geront., 1972.

[++] Attempts to define the meaning of "old", "elderly", "middle aged", "very old", "younger old", "older old", etc., are referred to in Chapters 8, 9 and 10; cf. esp. p.226.

Progress in gerontology could be well illustrated by a detailed content analysis of the discussions at these international congresses. Papers and discussions there reflect the work in the various research institutes and elsewhere in the world. The number of such institutes in the entire world is still not very large. But even without such an analysis it is certain that many of the basic questions about ageing remain as yet unanswered. There is no doubt that they are largely biological questions, that is physiological, psychological and general biological questions. And it is with these that the social and economic, the architectural, town and country planning and nutritional changes, and social security and institutional provisions have to be brought into accordance.

The trend towards greater concern of gerontologists with social aspects of ageing is manifest also in the training which gerontologists receive. Some light is thrown on this by an American study of graduate training in gerontology in that country, covering a period of 35 years. *

That survey shows that graduate training in gerontology - not altogether unlike that in social security - is spread over a number of academic faculties. Taking theses as an indicator, the authors find that of all theses on gerontological subjects during that long but recent period, 29 % were done in faculties of psychology, 20 % in those of sociology, 17 % in biological sciences, 12 % in education, 11 % in economics, 5 % in public administration, welfare and law, 5 % in health services, 1 % in social work and, less than one per cent. in other faculties. But this study shows also that the number of theses in gerontology (in that country and over that period) viz. 667 theses out of a total of 262,151 theses on all subjects, was no more than 0.25 %. Taking only theses in the biological, medical, psychological and social sciences, the proportion comes to 667 out of a total of 142,193, or 0.5 % on questions of ageing. In the course of the

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* Moore, Julie L. and Birren, J.E.: "Doctoral Training in Gerontology: An Analysis of Dissertations on Problems of Aging in Institutions of Higher Learning in the United States of America, 1934-1969", in, "Journal of Gerontology" (St. Louis, Mo.) 26, 2 (1971) 249-57.

period covered the proportion rose very slightly, from a low in 1943 till 1963 and then fell again to more or less its previous level. Such quantitative measurement does of course not provide any guide to the quality of the work.

The attempt to discover universal laws in relation to ageing, seen as a social phenomenon, is beset with difficulties. The study of the social problems of ageing is largely conditioned by events and social circumstances. Thieding illustrates this by reference to to-day's old people in Germany. He recalls the harrassing period through which to-day's old people - those born in about 1900 - have passed in that country: the first world war, a civil war situation following it, almost unprecedented monetary inflation, a new currency, followed by deflation and mass unemployment, a dictatorial regime, the second world war ending in political collapse, millions of refugees losing homes and savings, again inflation , again a new currency, the splitting of their country in two. He recalls how savings in gold-secured currency, savings of entire social classes were swept away, new prosperity of new social groups passed by many of that older generation. While certain categories of civil servants and social pensioners had the benefits they were entitled to expect largely compensated in purchasing power, many of those who had made their own arrangements for meeting the expected needs of their old age lost heavily. The structural changes which have occurred in society since they were young remain incomprehensible to many of them, and they look back bewildered and isolated. *

Descriptions of this kind could be given for the old in other environments. They would show that many of the circumstances of old age are socially and time conditioned. Thieding makes the point to show that social provision for the future of older people necessitates more than merely estimates of their proportional numbers in the future , expected states and costs of their health, but at least guesses as to how society may develop. To a limited extent, and within not too distant time limits social policy and social security have aimed at doing - and done this, as we shall endeavour to show below.

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* Thieding, (Dr.) F.: Der alte Mensch und die Gesellschaft. Stuttgart, Thieme, 1965. p. 39.

In the present context of the development of gerontology and its increasing need to concern itself with social security issues this raises a broad question in regard to future development of social security. Social security is essentially a "technique", but in the original sense of the concept τεχνή - which was not related to techniques and machines as it has come to be to-day, but as a comprehension of practice related to theory. This would imply a re-assessment of the concept of adequacy of social security.* It raises questions of medical care - of course in terms of costs, but costs expressed not so much in monetary terms, which can mean but little over time and across country and systems barriers - but in very general terms of principles. It touches on questions of welfare and its relation to social security in rapidly changing social structures, because it raises questions of an integrated approach to social policy. And this affects in turn of course the way in which social security and gerontology are taught. In fact gerontology generally and those concerned with ageing in a social policy and social security context have increasingly to search for and build a trans-disciplinary approach of the exact and the social sciences that will enable society to see the picture whole.

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* For a description of this, as interpreted by some authorities at the present time, cf., e.g., Rohrlich, F.: *Social Security for the Aged. International Perspectives*. Washington, D.C., United States Senate, 1969. page 1

2

Ages of Man

The "Third Age". Problems of "older" People. The Ages of Man: 3, 4 or 7 ?

It is coming to be realised increasingly that ageing is a continuous process, not one beginning abruptly at a particular age. At the same time, research in physiology shows that, in certain types of physical performance such as sprinting, high jump, short distance swimming, etc., there is, in statistics of large samples of people, a fairly sharp break at an age below forty. Taking however sports - and also other types of activity that demand endurance - remarkable performances remain possible in healthy individuals with suitable training, at very much higher ages. * The significance of these considerations leads logically - and has in fact begun to lead - to studying work situations, so as to ascertain what retraining is in fact desired and possible; it being understood that retraining should be of a kind acceptable to the individual and therefore not degrading him economically, socially or psychologically. Physiologists argue plausibly that this is medically sounder than condemning to idleness a man who wants to work. This reasoning could be reinforced by psychological arguments and also by economic ones regarding the cost of pensions. Physiologists maintain that it is not work that destroys man and makes him ill, but rather an unsatisfactory climate of human relations at work. Thieding and others call for more physiological and psychological research into this problem; ** and they are no doubt justified in doing so. They cite statistics of the numbers of people in the 45 - 50 age group having to stop work and draw disability pensions, to make this point. The rates and proportions of disability for people in this age group, which Thieding quotes show that disability is a menace not only for the individuals affected but for the entire economy. Dr. Thieding's statistics were gathered in Germany and are about ten years old, but there is no reason to suppose that the conclusions should not be valid elsewhere and subsequent to that period

According to this point of view the problem needs to be looked at, first, from the angle of positive health at younger ages, because good physical and mental health is one major factor making for pleasure in working and, because by maintaining younger people healthy the need for many later remedial measures is thereby greatly reduced. Policy in the future should therefore be more successful - looking at the matter from a medical point of view - if many of the potential early pensioners can be maintained in good enough health to want to go on working. As a secondary consequence the numbers of widows and orphans might well be smaller. If we look at the aetiology of diseases of older age groups, say, among individuals of 65 and over, the incidence of morbidity in that chronological age bracket becomes more readily intelligible in the light of closer study of morbidity - whether disabling or not - at much younger ages. Aetiological studies of morbidity are not easy to carry out for want of adequate morbidity statistics. The reasons for this will be considered below.

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* The International Association of Veteran Long Distance Runners, founded in 1968, has members in 27 countries. One of its seniors, a man of 85, did the 5,000 metres in 39 minutes. In Marathon races in particular remarkable performances have been recorded. Pointer, R.: "Age is No Barrier." *in*,"*World Health Magazine*" (Geneva) Ap. '72

** Cf., e.g., Thieding (Dr.) F.: *Der alte Mensch und die Gesellschaft*. Stuttgart, Thieme, 1965; op. cit., p. 27, f.

Mortality statistics in many countries show a sharp increase in "managerial deaths" around the age of 65: And it would appear that this type of phenomenon is spreading to other occupations. As far as we are aware, neither sickness nor pension insurance, nor general national health records in any country provide adequate mortality statistics permitting correlations of age at death, causes of death and occupational history. Such correlations are at least as important, if not more important with morbidity and disability rather than mortality. Difficulties encountered include morbidity classification and certification. These change in the light of medical practice and knowledge. Allowance has to be made also for the composition of the population considered. The subject is looked at below in a demographical context.

Occupational life tables exist, but medico-social research requires a statistical breakdown of a more elaborate kind. It should permit some correlation with the individual's occupational history. To give meaning to such studies invalidity and its problems need looking at not only from the point of view of type and degree of illness at a given point in time, but in terms of work done, conditions under which the individual lived and did his work at an earlier period, regulations and practices governing work, and also the even more statistically elusive measurement of the quality of human life and relations at work. To describe such experiences is one thing, to measure them quite another. The need to develop social indicators is now more widely felt and discussed. But since these indicators are partly subjective it is not easy to achieve measurement and comparability. *

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* Among the large number of writings on this subject reference should be made esp.to Shonfield, A.A. and Shaw, S.(eds.): Social Indicators and Social Policy. London, Heinemann, 1972; Campbell, A.: "Measuring the Quality of Life", in: "Social Science Research Council Newsletter" (London) No. 19 (1973); Allen, D.E.: "Social Indicators" ibid. No. 4 (1968); ---: Social Trends No. 3, Statistical Office, London, H.M.S.O., 1972; Rys, V.: "Social Indicators and their Application to Social Security", in: "International Social Security Review" (I.S.S.A., Geneva) XXVI 1/2 (1973) 134-58.

Legal pensionable age bears no direct relation to an individual's health; at least not in the sense that the former is based on the latter. It is worth reminding ourselves of this to appreciate that a particular chronological age for retirement is based on social conventions and not on any physiological phenomenon. But of course thus determined, age can be dealt with statistically. It affects, generally, all employed people covered by old age pensions. Some self-employed professional and other people, wealthy enough to make their own arrangements, and not subject to the rules of such schemes, are sometimes not, or much less conscious of age. Their activity as they grow older, depends on no bureaucratic decision or economic compulsion. Such people are few. They have no "old" man's status thrust upon them in this way at a particular chronological age. In so far as they are happy in their work and enjoy it they may well consider this an advantage. * Hence, Zbinden and many other physiologists ask whether it is not a non-sense to create an artificial class, the "old" and with much reduced rights at that.

Legislative or administrative decisions sometimes based on popular notions have made the retirement age of the employed into a criterion for establishing a statistically distinguishable class. As things stand, "the old" are considered "inactive"; and often they become indeed inactive, not only in the economic sense. Here we have therefore a kind of self-fulfilling prophecy. The enforced role of this (growing) segment of the population affects, in turn, popular notions of age, a process of which perhaps only few are conscious. Social depreciation creates inhuman reactions to this group. Inactivity presented as an aim to be desired, idleness as a goal may have unhealthy consequences for the community as a whole.

The psychological consequences of coercive chronological age limits to the freedom to work should not be underestimated. Hence, some observers looking at this matter from the angle of physiology, have been using terminology as strong as "pensions-induced death", "bankruptcy of pensions", etc. They argue that, replacing the accustomed rhythm of life by a sudden transition to idleness leads to atrophy as a result of physical and mental inactivity. It ought to be possible to compare this situation with, say, those of ageing farmers and artisans, even perhaps the more prosperous peasants where they exist, whose children and grandchildren take over gradually hard physical work while the older "self-employed" or un-"employed" himself

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* A medical practitioner, retiring after 40 years work, described recently in a medical journal how "...tearing up of roots, inevitably associated with retirement, [was] more painful and more disrupting than in the case of other occupations where daily work and daily living are not so inextricably mixed.." and went on to say, how much he missed the actual job itself, "the satisfaction, not always unselfish, that it provided, the recognised place in the community, the feeling of being a useful member of society that it engendered."

or herself remains more or less as active as he or she wants to be. It should be possible to record comparative measurements of this kind without idealising the agriculturist's or other non-"employed" person's condition or way of life. In the familiar institutional framework of which one inevitably thinks, the conditions of many of them are certainly far from ideal. Hence, the predominance of economic rather than biological thinking on this subject.

In large-scale manufacturing industry and in certain large service undertakings also, it should be possible to employ adults of whatever age who want to work and have the feeling of recognition that comes from being paid for working. The question of "how ?", remains to be solved. The technical changes occurring in industry and in services should not be underestimated. To speak of a "post-industrial" age may be somewhat sanguine. Yet, perhaps it is not too soon to give more thought to the adaptation of work to man, rather than vice versa.

It is well enough known that many trade unions, especially of unskilled manual and menial clerical workers demand lower retirement ages. They argue persuasively that stress, strain and tension at work leave no alternative. The high number of incapacitated people in industry and services as they are now organised may seem to confirm that view. But closer study of the causes of disability may well lead to different conclusions. Sociological studies by K.G. Specht and others show that more than four fifths of former manual workers - as well as many such workers at a lower age still at work - want a lower retirement age. Similar inquiries among professional people have shown quite different results. Much more study of the problems is undoubtedly needed. For much of the reasoning leading to demands for lowering compulsory retirement age seems in flat contradiction to considered views of medically trained observers. The contradiction may be more apparent than real because the problems are not considered in a broad enough frame of reference.

All inquiries in this subject are liable to be prejudged by the concept of the "third age". The exact origin of the term is not clear. The term "troisième âge" is increasingly used in French, perhaps on the analogy of "tiers monde","troisième force", other clichés used in social contexts which have become current in recent years. The term is relatively recent in origin.

It seems curious, in this context of age and time, that biology in this regard lags behind physics and that social studies lag behind biology. In physics it is recognised that of all the physical quantities - distance, mass temperature, electric current, time - the latter is the most frustrating and elusive. No human sense directly detects the passage of time, even though the day/night sequence and the seasons are natural clocks that give us imprecise impressions of passing time.

With clocks we measure time, but conventional clocks tell us only of time's passage. They repeat themselves every 12 hours. But physics has now arrived at a stage where it is possible to measure accumulated time and the properties of substances after a precisely defined lapse of time. If there are 100 grammes of isotope X in a sample at noon on Monday, but only 50 grammes left at noon the following Friday, the half life of isotope X is four days. This works with isotopes with half lives of millions of years. With clocks based on a reliable solar day or solar year we can measure with precision the age and properties of strata of sediments that make rocks, the recession of the moon's orbit, the velocity of light. After Becquerel discovered radio activity at the turn of the century, radio-active decay became a precise and reliable measure of time. Unstable nuclei change into new and more stable ones, and this proceeds unchanged by temperature, pressure or chemical environment. This is no doubt the principal difference from living plants or animals. In physics substances can be dated for periods up to 4,500 million years with a remarkable degree of accuracy.

The object of this digression into physics was to make the point that a simple physical substance of a given age exhibits precisely calculable characteristics or, conversely, that from a precise statement of such characteristics it is possible to determine age quite precisely.

Passage of time in biology adds another dimension, since living organisms are affected by interacting variables. Such indicators as rings in the trunks of trees, the teeth of horses provide additional measures of the passage of time but not necessarily of the ageing of the entire organism: And this is the important difference. F.M. Antonini, professor of geriatrics at Florence puts this rather graphically when he says: A car may be out of action because one single part, say the battery or the distributor is defective or, because all essential parts of the engine are worn out at the same time. In the first case, changing the defective part will make the car as good as new, while in the other it will not be long before the brakes, the suspension and all the rest will give way too.

One of the bulwarks of the scientific method is the scientists' insistence on measuring the same things by different methods. If this produces different answers there is no rest till the sources of error are found. This has worked well in physics, somewhat less well in biology and scarcely at all in social studies.

A case in point is that of the "troisième âge" mentioned above, a term now increasingly used also in English, literally translated as "third age".

Historically it seems almost as if we have regressed as regards human ageing. In classical antiquity, Alkmaion, a disciple of Pythagoras and one of the eminent men of the ancient world distinguished seven divisions of time in the nature of man which he called"ages", namely the young child to the age of seven, i.e. to his change of teeth, the child to twice seven, i.e. 14 or sexual maturity, the boy to three times seven, growing a beard, the young man to 4 x 7, i.e. to full maturity of the body, the man to five times seven, the older man to six times seven and the very old man over 49. This division, although largely based no doubt on the mystique of numbers, may well have had some observational base.

It must have been known to Shakespeare. In "As You Like It", he expressed in the xvi century, that is 21 centuries later, the same idea much more poetically, embellishing it freely with what many now call "value judgements". At least Shakespeare's description of the ages of man is plausibly embedded in the culture of his time:

All the world's a stage
And all the men and women merely players;
They have their exits and their entrances;
And one man in his time plays many parts,
His acts being seven ages. At first the infant,
Mewling and puking in the nurse's arms.
And then the whining schoolboy, with his satchel
And shining morning face, creeping like snail
Unwillingly to school. And then the lover,
Sighing like furnace, with a woeful ballad,
Made to his mistress' eyebrow. Then a soldier,
Full of strange oaths and bearded like the pard,
Jealous in honour, sudden and quick in quarrel,
Seeking the bubble reputation
Even in the cannon's mouth. And then the justice,
In fair round belly with good capon lined,
With eyes severe and beard of formal cut,
Full of wise saws and modern instances;
And so he plays his part. The sixth age shifts
Into the lean and slipper'd pantaloon,
With spectacles on nose and pouch on side,
His youthful hose well sav'd a world too wide
For his shrunk shank; and his big manly voice,
Turning again towards childish treble, pipes
And whistles in his sound. Last scene of all,
That ends this strange eventful history
Is second childishness, and mere oblivion,
Sans teeth, sans eyes, sans taste, sans everything.

In the century that followed, one obtains the impression that only adulthood counted, that is the age from the very early 'teens to, say, 40 or 50. In the xviii century childhood was rediscovered as a separate entity, popularized by Rousseau, and consolidated in the xix. Adolescence was reinvented in the early and mid xx century. And now, in the last third of the xx century, old age is being recognized as a separate phase.

In countries where they exist, national health services and "welfare state" systems have wrought great changes. Yet even there, despite economic expansion, wealth available is not at all fully shared with this fourth age. The problem remains of how the adult working population is to finance the three other age groups, children, adolescents and those retired so that they can live in a style now thought to be their due. It leaves the whole problem of retirement unsolved and to be reconsidered. Should those in Shakespeare's fifth and sixth age age - and, perhaps also those in his seventh and, for that matter, those in his third age - be encouraged to make themselves useful ? If so, how should their activities change with chronological age ? Should they not be rewarded and remunerated and thus recognized for the contribution they make in the present ? Should the "old" be encouraged to think of themselves as a horizontal social group, or should they be assimilated into vertical all-age groupings ?

Social anthropologists make two points which seem pertinent in this context: first, ageing of people in primitive agrarian cultures and, secondly, "rites de passage". On the first of these points, social anthropologists reporting on primitive tribes that remain in the nooks and crannies of to-day's world, describe in detail the signs of weariness, visible signs of suffering - not by any means entirely physical - among tribesmen at the age of about fifteen. Similarly, tribesmen of 25 seemed to the anthropologists like men of 40 in more sophisticated cultures; tribesmen of 40 comparable to men of 65 in these anthropologists' own cultures, while tribesmen"hardly yet 50 had characteristics of centenarians." These anthropologists themselves, men in their early forties, were thought by people in such agrarian societies to be "younger" because the anthropologists were so clearly enjoying life - an attitude of which tribal children were weaned at the age of three. Yet, numerous anthropological studies of this kind remark on the tribesmen's will to survive. But their prime of life lay, so it was noted, between the ages of about nineteen and twenty-four; at about 25 they were already old by dietary standards. Social anthropologists are of course known for collecting detailed minutiae of particular cases and for being very much on guard against generalising from studies of specific tribes and opposed to anything that smacks of building wider social theory. Yet many observations of the kind quoted are in fact to be found in descriptions of primitive tribes in our own day. Much as anthropologists may abhor generalizations, for others a pattern of this kind may well seem to hold good for prehistoric man in various parts of the world.

Secondly, research in social anthropology describes elaborate "rites de passage", initiation, transition and incorporation rites in primitive societies (stratified on a basis of age) to help people make the transitions to age-specific roles from age group to age group: birth, social puberty (hunter and warrior age), marriage, fatherhood, grandparenthood, advancement to a higher class, occupational specialization, status of elder, death - statuses sometimes marked on a man's body. One cannot but be struck when reading such accounts by how much such anticipatory socialisation for behaviour expected in novel roles has disappeared in our more sophisticated urban-industrial cultures, i.e. societies often described as more "open" in the sense of providing greater opportunities.

Retirement is one clearly identifiable phase in the life cycle where something of the rite and ceremonial has survived into these latter cultures, without however providing such openness: In other words, without, in most cases, freeing the individual from the frightening prospect of that (to him) new and severely restricted social and economic status. Social anthropologists, A. van Gennep, Max Gluckman, M.P. Crawford, Joel Smith and others have shown that "rites" of relinquishing work status identity have survived into our industrial culture, but without a balancing "rite" of incorporation. A retiring man formally handing over his job to a younger one, highly structured ceremonies of final leave taking on retirement with farewell speeches by managers, visits, drinks, presentations and handshakes on the last Friday remain as vestiges of such tribal rites. Yet, retired workers when interviewed, repeatedly made the point, they did not know where they were going. Van Gennep remarks that, unlike the "savages", the retiring industrial or service employee in the mass society was "..not accompanied on the road". As in Weber's ideal type of bureaucracy, "separation" is a highly impersonal, abrupt break, marked by a callousness, a lack of incorporation into a new status. That distinguishes it from these primitive "rites de passage".

Whereas death is inevitable and whereas some capacities and organs decline - and perhaps also inevitably and irreversibly - we know very little about how and why some people remain alert, competent, attractive, lovable and interesting into their nineties while others are old at ... (we can fill in our own figure here, starting from birth..)

The interested general public are well enough aware of the truth that "senescence has no function", but is rather the "subversion of function", to use Dr. Alex Comfort's words. * Much available public spending goes into alleviating or at least stabilising senescence. But, is enough being done to prevent it or at least to see how it can be prevented ?

Since age appears to be so largely socially determined, the very social factors that contribute so much to producing the stereotype of "old" people should surely impel us to tackle the question socially.

This applies notably to the problem of "old" women, and especially of old widows.

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* Comfort, (Dr.) A.: The Biology of Senescence. London, Routledge, 1956.

In one of the relatively richer highly industrial countries, not many years ago, it was found that in the age group of 65 and over - a statistically easily identifiable category - the great majority of men were married (72 %) while, of the women a proportion almost as high (67 %) were not. This contrast becomes sharper in each succeeding five-year age group, after the age of 65. Thus, in the 85 plus age group, only just very slightly over 1 in 20 of the women were married or still married. In two thirds of all marriages the wife survived the husband. In America, it was calculated that, even in cases where husband and wife were of the same age there was a 3 in 5 probability that the wife would survive the husband.

The implications of data such as these need close study. Care needed for old people in poor health is very costly. Many of these ailing old people who are not or no longer married have no homes or no satisfactory homes. The care needed implies physical and economic provision, hospital and clinical beds - much of it medical care and accommodation in old people's homes, where the family and relatives cannot or will not take responsibility. Actuarial data, discussed in the next chapter below, show increases in life expectation at birth.

But one of the main points the preceding discussion was designed to underscore was that by categorizing people by age and in then separating them by the resulting age groups may well create the very problems such categorization was intended to resolve - problems which, in many cases, perhaps hardly existed, if at all. Thus to segregate "abnormal" old people in separate institutions according to their abnormality may induce them then as residents in institutions to fight back by exhibiting the very symptoms for which they were segregated. The circular character of such a "separatist" philosophy becomes apparent when the protagonists of this approach then point to the symptoms to justify the original diagnosis to legitimate the treatment.

That many very old people differ in many respects from very young people is not in dispute. That in the predominant majority, who are neither the oldest nor the very youngest, criteria other than time elapsed since birth are more important should be equally obvious.

Categorizing people by age may in extreme cases determine the time span left to the"old" until death; in less extreme cases the quality of life during that time. The needs as well as capacity and willingness to contribute to the life of the community differ enormously among individuals. It is hard to think of a category of people who show as much diversity as "the old". Pathological conditions (whether somatic or psychosomatic) require specifics - and that at as early a stage as possible; poverty, in a different order of things, requires remedial and preventive facilities; insecurity, lack of physical mobility, isolation, loss of status and role likewise. Though often associated with"old age", these states rather than old age per se call for measures, including in particular opportunities restoring to individuals, whether "old" or not, capacities and attributes worth keeping or recovering.

Even if we take the artificial category of the "old" plus a more legitimate one, those who are both old and chronically ill social policy should, logically be impelled to deal with causes rather than symptoms if only because of the rapid rise in costs. If, as Dr. Michel points out, the number of geriatric beds in general hospitals and geriatric hospitals is far less in most countries than 20 per 10,000 population - the proportion some geriatricians consider optimal - the solution is not necessarily "to build more of these pre-crematoria", to use Michel's dramatic expression, or to convert more geriatric hospitals into old people's homes. Many geriatricians suggest policy might more usefully concentrate on rehabilitation and prevention, not least on improving housing accommodation and care and diagnostic facilities as well as on other measures of social and health policy before disabilities become debilitating, multiple and chronic. *

This can be - and probably needs to be - argued in financial and economic as well as in humanitarian and social terms as was done at the Socio-medical Congress at Lausanne in the spring of 1973.

Few approaches bring out so well the usefulness of need rather than age to be used as the central criterion as do longitudinal case studies, that is studies investigating the same sample of population over a long period. All too few such studies exist as yet. They require considerable investment. Their authors concede almost invariably the obvious weaknesses of such studies for generalization. Longitudinal case studies are none the less in many respects superior to most other bases. One such study takes a sample of nearly 4,000 middle class, relatively well educated and literate, at first middle-aged people in a particular part of the United States, over a long time span. It arrives at conclusions with regard to retirement and other social security and gerontological topics which will remain valid, it may be safe to say, for some time to come for the particular type individuals in the particular environment studied Several reviews of that book ** criticise the absence of any claim to generalisation of the findings to "the old" regardless of time and place. But such criticism of longitudinal studies misses the specific value of such research.

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* Michel, D. (Professor of Cardiology, Munich): "Klinische Geriatrie", in: Wo bleiben die alten Menschen in der Leistungsgesellschaft ? Interdisciplinäre Diskussion in der Gerontologie. Bergedorf, Bergedorfer Gesprächskreis, No. 43, 1972. p. 58, ff.

** Streib, G.F. and Schneider, C.J.: Retirement in American Society. Ithaca, Cornell University Press, 1972.

Case studies of this type make it possible sometimes to correlate subjective judgements of the individuals investigated with more objective evaluations of gerontological practitioners, thus permitting much more objective assessments, but always with reference to a particular place, time and particular aspects of age.[*] Such evidence as has come our way is on the side of those who declare that segregation of age groups has become and is becoming more rigid than in the past.[**] M. Philibert, who looks at gerontology from a historian's and a philosopher's angle, argues that, while to some ageing has always meant facing difficulties, our society has added new problems - which he enumerates - due to "spontaneous changes in society" that have "slowly and unknowingly" modified the conditions of ageing. The important point is that it is not ageing as such that has created the difficulties but rather social, that is man-made conditions imposed on certain categories of old people at a specific age in particular environments.

If ageing has come to be associated with loneliness, isolation, loss of income and status in contemporary industrial societies it is not because of any biological immutable characteristic typifying the ageing process. Nor are ignorance, disease, squalor, poverty and the other disadvantages by which the older in the richer societies are afflicted due to inability of these societies to prevent the handicaps of so many dubbed as "old". "Old" has acquired a connotation which is remediable; or, in other words, though we cannot change chronological age we might say, paraphrasing Anderson, that no one should be considered old.[***]

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[*] Cf., e.g., Clague, E. on the "Interdisciplinary Character of Gerontology", in: Paillat, P.M. and Bunch, M.E. (eds.): Age, Work and Automation. Basle, Karger, 1970, p. 24, f.

[**] This ties in with the impression contained in: Philibert, M.: "Historical Perspective on Current Developments in Social Gerontology", in: Proceedings, Eighth International Congress of Gerontology, Washington, 1969, vol.I, 23-26, and the picture conveyed by many other commentators.

[***] Anderson, W.F. argues that no one below the age of 80 should be considered old, in his paper "Modern Geriatric Practice", in: Proceedings, Eighth International Congress of Gerontology, Washington, 1969, vol. I, 15-18

3

Life Span

Life Span of Men and Women

The problems of human "ages" discussed above are related to life span of of men and women and changes over time in its average length.

The notion of human "ages", the practice of dividing human life into several separate and distinct stages, marked off by "calendar age", can create problems, as the preceding discussion was designed to show. The number of these socially imposed age groups, the boundaries between them and the age roles that characterise each "age" have differed over time and varied in different environments at given periods in history. The point so strongly emphasized above that rigidly categorizing people by age, in the sense of time elapsed since the individual's birth, can turn characteristics and peculiarities attributed to age into causes of physiological, psychological as well as of economic distress, applies particularly to older men and women in a work-oriented society who no longer work. Many of those stygmatised as "old", "older","ageing" come to dread the milestones, the "Rubicons, before [they] come to them, the age of 40, the menopause, retirement, senility ...", in Dr. Gore's phrase. But if, as she suggests, * men and women "... need to be liberated from the dread of mile stones ...", the problem of age barriers might be lookod at, usefully, against the background of changes in the quality of life. Fortunately this is not unrelated to the much less elusive concept of life span, the average length of life of men and women, on which some hard data exist.

Society is increasingly accepting the principle that the older individual persons are entitled to participate in social progress regardless of their ability to contribute to that progress in the present. This is shown by the evolution of social security policy, the development of health schemes and many other services. But while the principle is coming to be accepted, the limits are widely discussed. Priorities are argued. All demands on society's limited resources can, obviously not be met. Hence, in asserting their claim, the older members of society are at a disadvantage. Productive members of society can give greater weight to their priorities because of their powers to exert pressure.

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* Gore, (Dr.) Irene: Age and Vitality. London, Allen & Unwin, 1973

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requires of course consideration of many factors other than mere numbers of those labelled "older", or of the proportion they constitute in terms of population at work to that part of the total population no longer (as well as not yet) producing goods and services. None the less, changes in expectation of life of men and women are one element in social planning for the older - and, not the least important one, the more rigid the practices of excluding the older from productive activity.

The term "expectation of life" has a precise actuarial and statistical connotation:

> The average number of years of life which would remain for specific categories of individuals (say, boys and girls, men and women) reaching specified ages, if they continued to be subjected to the same conditions of mortality as obtained during a specified period in the (recent) past.

The difficulty inherent in using the concept of life expectation arises from the fact that social security planning for the needs of older people must be concerned, in regard to pensions, sickness, disability and other forms of social security and assurance, with a future (as much as or more than) a generation ahead. The anticipation or expectation of the numbers of persons alive at specific dates in the future is based, on the other hand - as the preceding definition shows - on quite specific assumptions about mortality in the past and its causes, which are not yet fully known or understood.

It is beyond dispute that the best possible guesses are needed as regards type, quantity, acceptable standards, costs and resources available to meet needs. Facts concerning past trends, practices, guesses as to what may be considered acceptable minimum levels of social protection in the future, help to narrow the margins within which planning can operate. However the difficulties should not be underestimated. As an illustration of the general problems of planning an example is provided by the controversy between the ecologists and conservationists on the one side and certain economists, bankers, financial editors, technocrats, i.e. proponents of the primacy of economic growth on the other. That controversy came into the limelight in recent years with the publication of the Club of Rome's warnings about physical limits to continued exponential growth, and the rejection of most of these assumptions by various critics, notably an interdisciplinary group at the University of Sussex and, interestingly, some economists.*

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* Cf. Meadows, D.L. and D.M.: Limits to Growth. M.I.T. Press, 1973; Cole, H.S.D., Freeman, C. et al.: Thinking About the Future. A Critique of 'Limits to Growth'. Chatto + Windus, 1973; Peccei, A. (Chairman, Club of Rome) and Siebker, M.: "The Case in Favour of the 'Limits to Growth' ", and, Maddox, J. (Editor of "Nature"): "The Case Against", in, Report on 'The Limits to Growth'. Strasbourg, Council of Europe, 1973. (Consult. Assem. Doc. 3233)

The general planning problems that lie at the centre of this fierce controversy concern contingencies no more than a third of a century ahead. Problems of changing expectations of life and of its quality enter into this controversy. They occupy a place in this much broader debate, based on a computer model in which are quantified various assumptions about four other major variables as well as population. Disaster on a global scale, at a not very distant date is predicted on the basis of this model. The sharply contrasted views on broader issues of provision for the future do serve as a warning of unforeseeable traps and the magnitude of possible errors besetting all social planning. Since planning in regard to various aspects of human ageing is indispensable, the reference here to the "limits to growth" controversy should serve as a warning about the care that such planning requires.

As costs attributable to disability and dependance among older people are largely borne by the community, two fundamental questions arise. The first concerns the extent to which such costs - of prolonged and exceptionally expensive disability - are caused by socially conditioned lethal environmental, that is exogenous factors and therefore, at least to some extent, preventable. Secondly, there is the related question concerning the extent to which killing disability in old age, may be otherwise, e.g. genetically determined, i.e. endogenous - and therefore for some time to come, hardly, if at all, preventable. Hence, expectation of life, in so far as it varies and is related to changes in the quality of life, introduces additional problems related to time scale.

It is thus necessary to find first precise and reliable statistics regarding life expectations of large populations. For social security, general social planning, medicine, town and country planning, etc., the problems of older people - for whom increasingly expensive provisions will have to be made - need to be quantified. This can be done first in a rough and ready way. At a later stage, it is desirable that the data should be refined, if possible by introducing clearly specified assumptions about particular needs of specific categories, showing various options open to society for meeting these needs or for reducing them. This second stage introduces problems of time scale which are particularly difficult to analyse.

When looking at the disproportionately large number of women in human populations the first fact that stands out is that, at birth males predominate. Statistical records for many countries show that at birth there is a predominance of males to females varying from 104 : 100 to 106 : 100, with a clustering around 105 : 100, so marked that there must be a bio-physiological explanation.

Indeed such explanations have been offered and seem now generally accepted. Whether this proportion has never varied in the history of the human race and, whether a comparable predominance of males at birth is found among other higher mammalian species is not known to the present writer.

The next important fact that stands out is that, taking human populations in large geographical areas, females predominate, at the present time, to varying degrees in all the more medically advanced countries, i.e. in all those countries of the present day world where public health measures have reduced mortality from parasitic infections, malnutrition and accidents early in life and deaths of women in childbirth. As a generalisation it may be said that predominance of women in total population at given ages increases with age. But table 1 shows that the age at which women begin to predominate varies considerably, even among countries with relatively comparable average levels of living.

Table 1

Earliest Age at which Women begin to Predominate markedly[1] in Total Population *

Country	(Year)	Earliest Age (of marked predominance of women)
German Democratic Republic	(1970)	43
German Federal Republic	(1969)	45
Austria	(1970)	45
Scotland	(1966)	64
England and Wales	(1966)	65
Switzerland	(1970)	66
France	(1968)	68
Italy	(1969)	69
Netherlands	(1970)	70
Denmark	(1969)	73
Sweden	(1970)	75
Yugoslavia	(1969)	81
Ireland	(1966)	83

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* Calculations based on data given in: United Nations: Demographic Yearbook. 1971 (Table 7).

[1] "Marked predominance" is here taken to mean more than 120 women per 100 men.

The table shows that variations are considerable even within such a relatively homogeneous group of countries as those of Western and Central Europe included in the table. It has to be remembered of course that these data are for a specified date only. The figures on which the table is based were the most recent obtainable at the time of writing, for a fair number of countries. There does not seem to be any simple or obvious explanation for these wide variations. It is somewhat surprising that a significantly larger proportion of women occurs in these countries at rather higher ages than might have been expected in the light of data on life expectation for men and women in recent years, which is documented in table 2 and diagram 1, below.

Table 2 shows expectation of life * separately for men and for women for virtually all European countries,** again for as recent a period as figures were available at the time of writing. The five ages for which life expectations of men and women are indicated in table 2 are, admittedly somewhat arbitrary, but not entirely so. Life expectation at birth is clearly, indicative of a global picture. At the other extreme, the age of 80 may be taken as the highest age for which an adequate population existed for providing data that were still indicative of life expectation of those who survived longest. The other ages, 15, 35 and 60 were chosen because they may be taken as indicating, respectively, the age before boys and girls begin to "work", then the age more or less indicative of mid working life and, thirdly the age just before or just after the end of what constitutes "working life" for most of those who are "employed" in the economic sense of the term. The full table on which these calculations are based would be too lengthy to reproduce here. The division of Europe into five geographical zones is also somewhat, but again not entirely arbitrary. The division is geographical, not political. The data are again, as in the preceding table for as near as possible the same period, as recent a one as was possible at the time of writing.

The salient points of table 2 become more striking when presented in graphical form. This is done in diagram 1. Regional variations are omitted in the diagram so as to simplify the picture. But, since they are by no means insignificant they are discussed on p. 34, below.

These data should of course be interpreted cautiously. They bring out two important points. First that, at or near the present time, life expectation in Europe is on an average five and a half years greater for girls than for boys at birth or, in other words, the latter have a life expectation at birth 7.5 % lower than the former. The figures used as a basis for table 2 and diagram 1 are, it is true, for a particular period and for one continent only. It is worth stressing that they refer to recent experience of a population numbering somewhat over 500,000,000 people, living in an area of 1,900,000 square miles, 4,900,000 square kilometres. Those people who survive to higher ages have of course a longer expectation of life. Table 2 shows that this is rather more marked for those who survive the age of 15 (as compared with life expectation at birth), less so for those who survive beyond 35 (as compared with the

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* As defined on p. 27,above.

** In the discussion on p. 33, below reference is made to some extra-European countries for which relevant data exist

Table 2

Expectation of Life (ė) of Women (F) and of Men (M) *

expressed in years (y.) and months (m) at specified ages
and Differences (Δ) (ėF - ėM) at each specified age
in European countries, mid to late 1960s

	At Birth			At Age 15			At Age 35			At Age 60			At Age 80		
	F	M	Δ	F	M	Δ	F	M	Δ	F	M	Δ	F	M	Δ
Europe	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.
Northern	74-10	69-2	5-8	61-4	56-1	5-3	41-10	37-2	4-8	19-5	16-2	3-3	6-5	5-8	0-9
Western	74-2	68-2	6-0	61-0	55-6	5-6	41-7	36-8	4-11	19-4	15-7	3-9	6-7	5-7	1-0
Central	72-8	67-0	5-8	60-7	55-4	5-3	41-4	36-8	4-8	18-10	15-7	3-3	6-1	5-5	0-8
Southern	71-10	67-0	4-10	60-10	56-6	4-4	41-7	37-[illegible]	3-9	19-1	16-6	2-7	6-2	5-7	0-7
Eastern	72-1	67-0	5-1	60-11	57-7	3-4	41-10	38-10	3-0	19-0	17-1	1-11	6-8	7-1	+0-5
Whole of Europe	73-2	67-8	5-6	60-11	55-11	5-0	41-7	37-2	4-5	19-1	16-0	3-1	6-5	5-8	0-9

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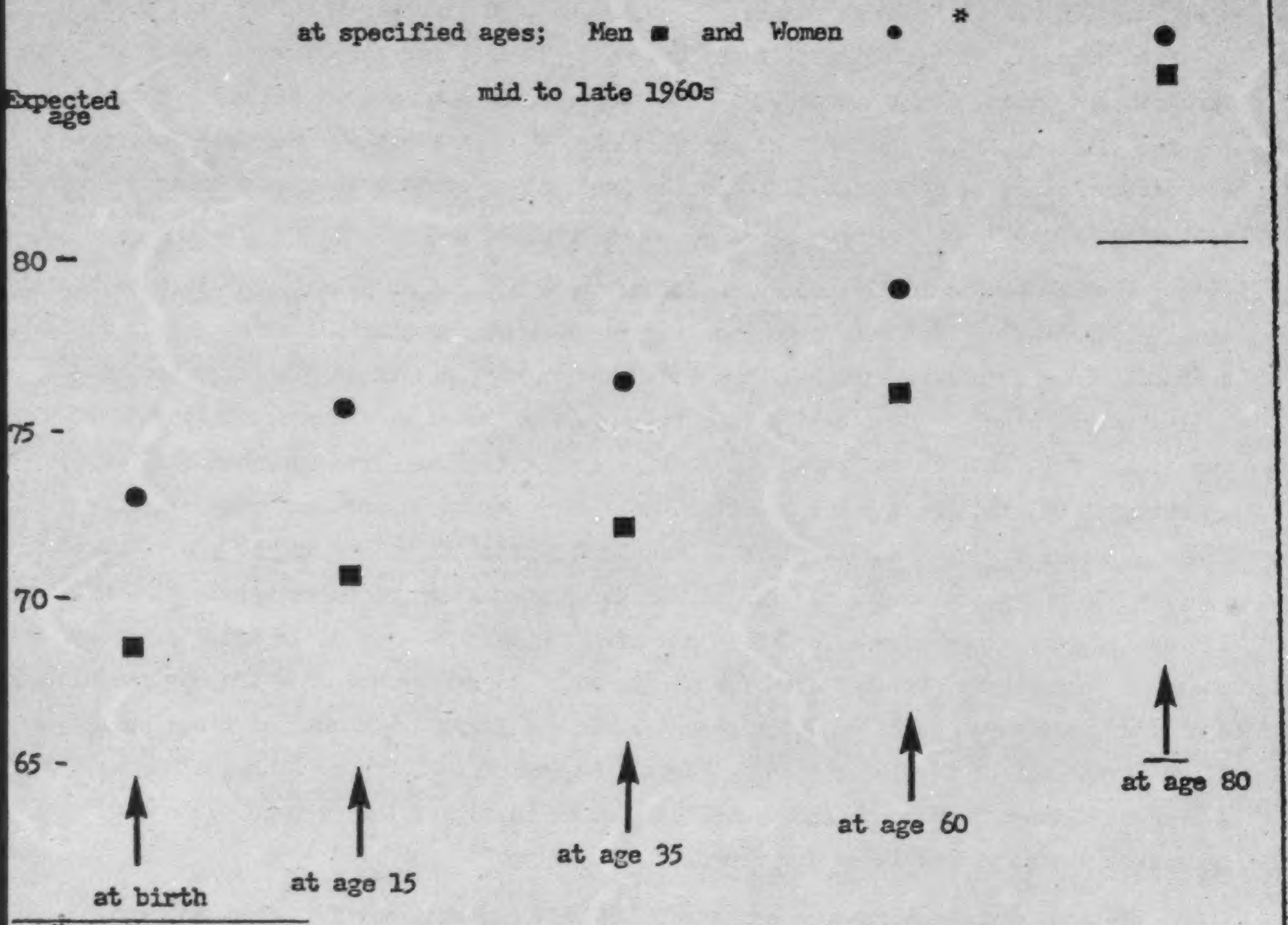
* Life expectations (as defined on p.27, above) indicated in this table have been calculated from figures given in, United Nations: Demographic Yearbook, 1971 (Table 34). For life expectation at birth, the figures in this table are based on data given in that source for all European countries except the Russian Fed. Soviet Soc. Rep., Turkey and countries with a population of less than (in 1968-70) 1 million. For life expectations at higher ages, no figures were available for the Byelorussion and Ukrainian S.S.R's, and for Romania only for the age of 60. The heading "Eastern Europe" includes therefore - except for life expectation at birth, only a very small number of countries. The figures for the "Whole of Europe" are not the average of the preceding averages, but have been calculated by averaging the separate figures for European countries.

preceding age group. The trend is more marked again, relative to the preceding age given in the diagram for those who survive to 60 and over, and very much more so for the, of course much smaller number of 80 year old people. The relative importance of the 60 and 80 age groups in the population is illustrated for two countries in Diagram 2 on p. 37, below.

Secondly, life expectation remains higher for women than for men throughout life. The table shows that this is the case for virtually all European countries at the present time. Percentage-wise, the gap increases to at least the age of 60. This means that, in this population at that time, a girl of 15 could expect to live another 60 years and 11 months (i.e. to the age of 75 years and 11 months), while a boy's life expectation at that age was exactly 5 years less, or in other words 8.2 % less. By the age of 35 the gap was 4 years and 5 months, which is however about 10$\frac{1}{2}$ % less for boys than for girls. At the age of 60 the gap is 3 years and 1 month which is a difference of over 16 per cent less. After that, at 80, the situation changes; the nine months shorter male life expectation represents a percentage difference of only about 10 percent.

Diagram 1

Expectation of Life (whole of Europe)



* Source: based on data in Table 2

One is naturally inclined to ask, first, to what extent this picture of length of life in Europe in the 'sixties of this century differs from expectation of life of men and women in other parts of the world and then, how much life expectation in given geographical areas has varied over time.

In regard to the first of these two questions: the most striking difference exists of course between these, on an average, relatively rich countries and the poorer * countries of the world. Such data as are available for the latter and for roughly the same period, show that in much of Africa and Asia life expectation for men and women at

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* The use of terms such as "poorer countries" should not be taken to mean that one should accept the somewhat naïve method of taking Gross National Product of a given country, dividing it by the number of people in that country and then apply prevailing exchange rates of some such currency as the United States dollar. None the less there are countries markedly poorer, measured by whatever standard - even if there is no really satisfactory method of measuring economic wealth and poverty.

34 E-- 47

birth was (in years) 26-23 in Guinea, 29-35 in Chad, 32 in Upper Volta, 33 in Nepal, 33-38 in Burundi, 35 in Ethiopia, Yemen and Mali, 37 in Niger and Dahomey, 40-41 in Tanzania and Sudan, 45 in Lesotho. * Attempts have been made to correlate such figures with population per medical practitioner. ** It is likely that some positive correlation could be established. None the less, it is certain that many other factors enter into the picture.

In those economically poorer countries where statistics make it possible to look at life expectation separately for men and for women at roughly the same ages as we took, above for Europe, one is struck by the fact that in at least three of the larger, so-called "developing" countries life expectation at birth and at the ages of 15 and 35 was higher for men than for women. *** Life expectation at birth in India (1951-60), Pakistan (1962) and (rural) Nigeria (1965-66) were for women and men, respectively: India 40 years 7 months and 41 years 11 months, Pakistan 48 y. 10 m. and 53 y. 8 m, Nigeria 36 y. 8 m. and 37 y. 2 m. The higher life expectation of males persisted - with increases, percentage-wise - for those surviving beyond the ages of 15 and 35, in the cases of Pakistan and Nigeria even for the 60 year old age group. For the 80 year old age group no figures were found for Nigeria. In the first two countries those still alive at the age of 80, interestingly had a life expectation higher than the European average. Without jumping to hasty conclusions one may infer that longevity is not necessarily simply correlated to economic prosperity.

In some richer extra-European countries life expectations for women and men, at birth were (in years and months): Canada 75-2 and 68-10, Japan 74-4 and 69-1, Australia 74-2 and 67-11. The figures for New Zealand (73-10 and 68-5) were also somewhat higher than the European average, those for Uruguay (71-7 and 65-6) and Chile (59-11 and 54-5) below it. For these same countries, life expectations for Canada were at all four ages (viz. 15, 35, 60 and 80) well above the European average for women - in fact, higher or just below the levels of Sweden and Iceland, the highest in Europe; for men (at all four ages) not quite so high, but still around the European average. The figures for Australia, New Zealand and Japan, for men and women at all the ages considered were very close to the European average, for Uruguay somewhat below that average, especially for men. In Chile, life expectation for men at the ages of 15 and

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* Figures such as these are liable to be out of date by the time they are read. One hopes that these dismal figures will be by the time these lines are read. They are figures however relating to a not so distant past.

** Cf. "O.E.C.D. Observer" (Paris) No. 61 (December 1972) p.9.

*** Not all the figures available refer to exactly the same period. The period to which they refer is therefore given in brackets.

35 is well below the lowest for any European country, but at the age of 80, life expectations of both men and women are appreciably higher than for any European country, more so even in the case of women than of men.

It is well enough known that life expectation varies widely. Since figures for large populations are available by country it seems worth while to break down by country - and sex and age - the figures on which table 2 is based. This is done in table 3.

Table 3 shows that at each age there is - for men in particular, but for women also - a very wide spread between the highest life expectation and the lowest. The gap widens for men at the age of 35, where it ranges from about 39½ years in Scotland and Iceland to 33 years 11 months in Finland. Finland, in any case, diverges strikingly from the other Northern countries, particularly for men at working age, to a lesser extent for women also: A phenomenon that would, clearly, merit closer analysis by occupation and other factors to which reference is made below - an analysis requiring study that cannot be done on the basis of these country-wide figures. *

A slightly different point that would merit closer study is that of the difference between average expectation of life of men and women of working age, i.e. the ages of 35 and 60. Thus, the difference in Europe in the 1960s was greatest in France, Finland and Austria (in this order of magnitude), least in Greece, Bulgaria and the Irish Republic. At the age of 80, the picture differs considerably. One might be tempted to draw facile conclusions from these figures, but in the present writer's opinion it would be unwise to go beyond attracting attention to this point and stressing that closer analysis is worth while.

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* Occupational data exist of course. But more are needed. And much analytical work needs to be done on them. The difficulties are illustrated by a letter in the "British Medical Journal" /B.M.J./ 3, 1973 p.119 in which a correspondent comments as follows on the "longer life expectation of women": "I doubt if this is true of women doctors. It is certainly not true of men and women doctors whose obituary notices appear in the "B.M.J.". In recent years I have made an analysis of the age of death of male and female doctors and of various categories of doctors..." The writer then cites figures showing that the average age of 389 male doctors whose obituaries appeared in the "B.M.J." in 1968 was 69, that of the 33 women doctors who died in that year was 65, and that, taking general practitioners only, the average age of 144 male G.P.s who died in the same year was 70, that of the 14 women G.P.s eight years less. The point the figures were meant to bring out was that women occupationally active in an exacting occupation such as general medical practice, had a lower, not a higher expectation of life. The obvious statistical weaknesses of such arguments were explicitly recognized by the writer of the letter. They are stated in greater detail by commentators on the subject in subsequent issues of the "B.M.J.".

Table 3

Differences in Expectation of Life at given Ages *

Women (F) and Men (M) in Europe, by country

mid to late 1960s (y=years, m=months)

Females		Males		Difference **	
Highest	Lowest	Highest	Lowest	Greatest	Least
y. m.	y. m.	y. m.	y. m.	y. m.	y. m.
		1. At Birth			
76- 6 {Sweden Netherl. (76- 2 Iceland 76- 0 {Byelo-russ. SSR Norway 75- 7 Denmark 75- 4 France 75- 0 UkrainSSR	67- 0 Albania (68-10 Cyprus) 68-11 Yugosl. 69-10 Romania 70- 8 Greece 71- 0 Portug. 71-11 {Hungar. Spain	71-11 Sweden 71- 0 Norway (70-10 Iceland 70- 8 Denmark 70- 1 Netherl 69- 0 Byelo-russian S.S.R.	64- 4 Yugoslavia 64-11 Albania 65- 4 Portugal 65- 6 Romania 65- 5 Finland 66-11 {Hungar. Scotland	8- 0 Ukrain.SSR 7- 8 France 7- 2 {Austria Finland 7- 0 Byelor.SSR 6- 5 Netherlands 6- 4 {Czechosl. Engl+Wales 6- 2 Scotland	2- 1 Albania 3- 2 Greece 3- 9 Bulgaria 3- 8 Ireland (4- 2 Malta) 4- 6 {Spain Yugosl.
		2. At Age 15			
62-10 {Netherl. (Iceland) 62- 8 Sweden 62- 7 Norway 62- 0 Denmark 61-10 France	59- 2 {Finland Ireland Yugos. (59- 8 Malta) 59-10 Scotl. 60- 5 NIrel.	58- 4 Sweden 58- 1 Norway 58- 0 Albania (57-11 Iceld) 57- 8 Greece 57- 5 Nethld.	52- 6 Finland 54- 0 Austria 54- 1 Scotland 54- 5 France 54- 8 Yugosl. 54-11 {Czechosl. Grmn. Fed.	7- 5 France 6- 8 Finland 6- 7 Austria 6- 0 Eng+Wales 5- 8 {GermanFR. Scotland	2-11 Greece 3- 2 Ireland 3- 4 Albania 3- 5 Bulgaria (3 11 Malta) 4- 1 Spain
		3. At Age 35			
(43- 6 Iceland) 43- 4 {Netherl. Scotland 43- 0 Norway 42- 6 {Denmark France	39-11 Ireland 40- 0 {Finland Yugosl. (Malta) 40- 5 Sweden 40-11 NIreland	(39- 6 Icelnd) 39- 5 Scotl. 39- 2 {Alban. Norway 38- 8 Greece 38- 5 Bulgar.	33-11 Finland 35- 1 Sweden 35- 6 Austria 35-11 Yugosl. 36- 4 {Czecho. France	6- 7 France 6- 1 Finland 5- 8 Austria 5- 7 Eng+Wales 5- 4 Sweden	2- 8 Greece 2-10 Bulgaria 2-11 Ireland 3- 2 Albania 3- 7 Spain
		4. At Age 60			
(20-11 Iceland) 20- 6 Netherl. 20- 5 Sweden 20- 4 France 20- 2 Denmark	(17- 4 Malta) 17- 6 Finld. 17-10 Yugosl. 18- 1 {Hungary Ireland 18- 3 Romania	(18- 7 Iceld) 18- 1 Alban. 17- 7 {Norway Sweden 17- 0 {Denmk. Greece	14- 4 Finland 14- 6 Scotland 14-10 {Austria Yugosl. 15- 1 {Eng+Wales N. Ireland (15- 2 Malta)	4-10 France 4- 7 Eng.+Wal. 4- 1 {Austria Scotland 3- 8 {Netherlds N.Ireland	1-10 Bulgaria 1-11 {Albania Greece 2- 0 Romania 2- 4 Ireland 2- 6 Spain
		5. At Age 80			
7- 1 {Albania (Iceland) 6-11 {Denmark Netherlds. 6-10 {Eng+Wales Sweden	5- 6 {Finld. Hunga. 5- 7 Spain 5-10 Yugos. 5-11 Ireld.	8- 2 Albania (6- 4 Iceland) 6- 2 Netherl. 6- 1 {Denmark Norway	4-11 {Finld. Hunga. 5- 1 {Ireland Spain Yugosl. 5- 2 Austria	1- 6 Eng+Wales 1- 5 France 1- 0 N.Ireland 0-10 {Belgium Ireland Poland Portugal	0- 4 {Bulgaria (Malta 0- 5 (Cyprus) 0- 6 {Norway Spain 1- 1 Albania+

* Source: as for Table 2, above

** Under this heading are indicated the countries in which the difference between male and female expectation of life was greatest and those where it was least.

+ Male expectation of life greater than female.

Differences in life expectation vary considerably within countries between socio-economic, occupational, racial and other groups - a fact strikingly illustrated by data for people of European and other origins in the United States and Australia - probably also as between income groups, socio-economic groups, differences in housing standards, etc.

Caution in interpreting data of this type is supported by leading gerontologists. While some of the causes of extreme divergences may seem obvious, Chebotarëv is certainly right when he says that causes of the less extreme differences seem "far from clear", and points to differences in killing diseases such as athero-scelerosis.*

Climatic, nutritional, genetic, occupational (e.g. stress) and other factors, certainly enter into the possible explanations. Moreover for social security it is important to know not only what proportion of a given age group is alive at all, but also details as to their (physical and mental) health, morbidity and degree of dependancy. Not nearly enough of this type of information exists for large populations.

H. Selye and others have developed a theory linking mortality and morbidity to stress and adaptability of individuals, arguing that the duration of an individual's life depends mainly on two factors: (a) quantity of the individual's energy of adaptation and, (b) the rate at which the individual uses it in the course of his or her life. It can be argued that (a) is largely hereditary and can thus scarcely be influenced, in the present state of biological knowledge whereas (b), by contrast, does not entirely escape individual and social control. It may well be that, on the whole women are less prone to stress and tension and better able to cope with it when it occurs than men. **

It is all too easy to argue that the higher mortality rates of human males in contemporary industrial societies are entirely economically and culturally determined. Diagram 2, below, illustrates the age pyramids for two different "types" of country at a fairly recent date. There is no suggestion here that the two countries shown in that diagram are entirely typical of groups of countries. Many factors other than mortality, such as birth rates, migration, etc., determine such age pyramids.

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* Academician Prof. D.F. Chebotarëv, Director of the Kiev Institute of Gerontology, "Longevity and the Role of its Investigation in the Elucidation of the Ageing Process", in: Eighth International Congress of Gerontology: Proceedings. Washington, D.C., 1969. pp. 382-85. It is interesting that Chebotarëv who stresses the environmental and ecological causes of premature human mortality should make a point of this kind.

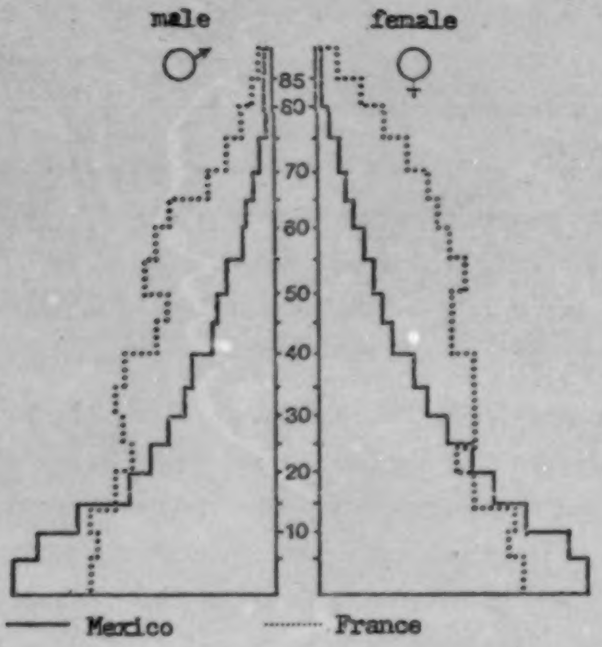
** Problems of stress are discussed in Chapter 10, p. 260, below.

Diagram 2

Age Structure of Population *

in two countries

Mexico 1960; France 1961



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* Source: Rosenmayr, L.: "Soziologie des Alterns", in: Bergedorfer Gesprächskreis: Protokoll No. 43, 1972. p. 79

In the French pyramid the "dents" in the 43-47 and 22-25 age groups reflect the two world wars. The effects of wars and changes in migration policies can be very much more marked in the case of some countries. A point diagram 2 brings out graphically is that in two countries (that differ considerably as regards birth rate, migration, occupational structure, periods of high mortality resulting from natural disasters, wars, etc., and in many other respects) there is a predominance of women which is striking particularly in the higher age groups.

It has been argued, on the basis of studies of animal experiments that life expectation of females (for comparable individuals living under comparable conditions) is considerably higher than that of males. Thus Kallman's experiments with rodents showed that the females lived, on an average for 900 days (compared with 570 for males, i.e. 37 per cent. less.) Such experiments in which genetic and environmental differences were eliminated have led to explanations of this disparity in terms of male hormones being accountable for the shorter male life span. But as far as one can see, such experiments (a) are far from conclusive, (b) it is not at all certain that the conclusions are transferable to human populations and (c) if (b) could be proved, these hormonal and pathological advantages of females might, in the case of human populations be counteracted, none the less by other human biological and, certainly by social factors tending in the opposite direction. It is worth noting that one enquiry covering a human population of twins found that among twins aged 60 who had led similar lives females predominated at the ratio of 53:47.

Up to this point we have introduced no time scale or, in other words no comparisons of life expectations of men and women at the present time with life expectations of men and women in the past. To make the point perhaps clearer still, we might put the question this way: How have the left and the right hand sides of pyramids such as that reproduced in diagram 2 changed over time ?

Life expectations of men and women at birth and at the various ages represented in table 2 and diagram 1 are much higher in the richer than in the poorer countries to-day. This was shown in the discussion above. It is illustrated by the data on which that discussion is based.

Fairly good and reliable statistics exist for a number of countries for the past 50 or even 100 years. But if we look at life expectation over time it seems better to consider statistics for separate countries rather than to re-calculate existing data and construct a curve combining data for a number of countries. Diagrams 3 and 4 and table 4, below, refer therefore each to one country only. This is not to say that these countries are "typical". No such assertion can be made without very laborious collection and analysis of trends in many other countries. The fact that we have not engaged in this onerous exercise here is not to be taken as meaning that this should not be done in the future.

If we accept the premise of this book that, at the present stage the most important objective is to formulate questions and to put them in context then these diagrams and this table are adequate, in so far as they raise a major point requiring detailed and intensive research: Secular increase of male and female life expectation, but with a marked slowing down of the former in recent decades.

Diagrams 3 and 4 show a steady upward curve of life expectation of women at birth, flattening out somewhat, in the case of Britain in the 1960s, but a much more marked flattening of the corresponding curves for males; a widening gap, in the case of Germany from the 1920s. In Great Britain this is the case also, but becomes more visible in the curves for life expectation at the age of five.

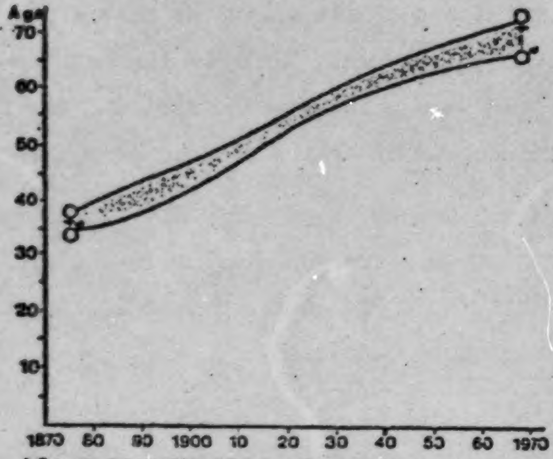
Increasing average life expectation at birth for men and women over the past century in these countries should not lead to the conclusion that people now, in the last quarter of the xx century, live decades longer than in past centuries - a point to which we return in the next chapter, below. But far more new born boys

Diagram 3 *

Expectation of Life at birth. Men and Women

Germany + 1875 - 1968

age in years



+Germany until 1940. Then German Fed. Rep.

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* Source: Rosenmayr, L.: "Soziologie des Alterns", in: Bergedorfer Gesprächskreis: Protokoll No. 43. 1972

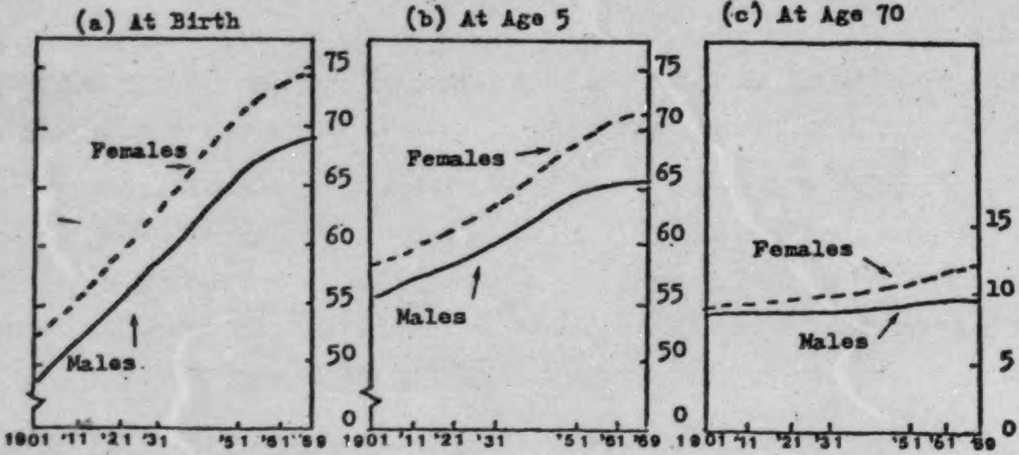
Diagram 4 *

Expectation of Life. Men and Women

England and Wales and Scotland (weighted) 1901 - 1969

age in years

Years of Life Expectation


(a) At Birth

(b) At Age 5

(c) At Age 70

* Sources: (British) Government Statistical Service: Social Trends, 1972. pp. 59 and 105 (quoting various primary sources.)

Table 4

Increase in Expectation of Life: Men and Women At Different Ages *

Switzerland: 1876/80 and 1958/63

in years (y.) and months (m.)

Ages	at birth	1	5	10	20	30	40	50	60	70	80	90
I Women	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.	y. m.
1876/80	43- 2	51- 1	51- 6	48- 2	40- 4	33- 2	26- 4	19- 1	12- 6	7- 6	4- 2	2- 4
1958/63	74- 1	74- 6	70-10	66- 0	56- 2	46- 6	37- 0	27-10	19- 2	11- 8	6- 1	3- 1
Increase	30-11	23- 5	19- 4	17-10	15-10	13- 4	10- 8	8- 9	6- 8	4- 2	1-11	0- 9
II Men												
1876/80	40- 7	49-11	50- 2	46-11	38-10	31- 8	24-10	18- 1	12- 2	7- 5	4- 1	2- 2
1958/63	68- 8	69- 5	65-10	61- 0	51- 6	42- 2	32-10	24- 0	16- 2	10- 0	5- 6	2-10
Increase	28- 1	19- 6	15- 8	14- 1	12- 8	10- 6	8- 0	5-11	4- 0	2- 7	1- 5	0- 8

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* Source: Gilliand, P.: Vieillissement démographique et planification hospitalière. Lausanne, Canton de Vaud, Département de l'Intérieur, 1969. Based on Table I, 48

and girls may expect to live to somewhat beyond the age of 60 than at the turn of the century - but notvery much more than the biblical three score years and ten. The increase is more spectacular when comparing the present with the situation a century ago. Among the old women life expectation has increased very little over the past 50 or 100 years. But there are many more women - and also more men - above what we think of nowadays as "retirement age", which varies of course somewhat as between countries.

The point is well illustrated in the Scottish Registrar General's Report for 1970, where it is noted that, as between 1861/70 and 1970, life expectation at birth increased for boys from 40 years and 4 months to 67 years, for girls from 43 years and 11 months to 73 years and two months, both very spectacular increases. For the 65 year olds the change is relatively small: Men of 65 in Scotland could expect to live another 10 years and 10 months a century ago, another eleven and a half years in 1970. The corresponding figures for women of that age group then and now are 11- 7 and 15- 1.

Perhaps the most striking point brought out by this statistic is that the difference between life expectation of women and men of that age has widened from nine months to 43 months during that century.

It appears from statistics of this kind that in the richer countries the trend for men to live longer than they did in the past is still continuing, but the increase has slowed down considerably; the trend seems to begin to decelerate in recent years for women also. Much study will be needed to throw light on these phenumena to see how characteristic they are for particular groups [*], occupations, localities [**], etc., to understand the causes,[***] to look at the phenomena in terms of morbidity and dependance as well as mortality. If it be true, as Dr. Irene Gore suggests that "retirement probably kills more people, especially men, than do all the hazards, strains and stresses of working", this aspect too would require detailed research.

To project present trends into the future is of course a much more hazardous undertaking. This will be referred to below. The only certain explanation for the past trend is that many exogenous causes of ill health such as infectious diseases which were fatal in the past are no longer so; others are, and perhaps more so. The incidence of the latter explains certainly in part the relatively shorter lives of males.

Detailed studies on this point show an increasing incidence among men in the age groups associated with later working life [+] of heart vessel diseases, certain brain vessel diseases and specific types of malignancies [++], invasive growth of tissue. As for the first, the heart vessel diseases, increasing congestive heart failure is often linked with myocardial infarction or valvular heart disease - or, for that matter, with broncho-pneumonia, often associated with them. This is reflected in mortality statistics for this male age group in certain countries and certain socio-economic groups since the mid 1920s. Discussions in specialized journals [+++] try to establish links of the phenomenon with dietary changes, cholesterol, oxidisation of bread flour, the use of chlorine and nitrogen trichloride. But it is clearly linked also to other causes, because these causes would scarcely explain why male mortality should be so much more affected than female.

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[*] For example, some studies seem to suggest that married people live longer than unmarried ones - a fact not unknown to Mr. Weller senior who warned his son "Beware of vidders, Samivel."

[**] In rural areas where there has been much migration to towns there is often a marked predominance of old women in the total population.

[***] Mortality broken down by causes of death presents difficulties when looked at even over periods of only several decades, not least because of changes in certification.

[+] Cf., e.g., Delachaux, A.: *Manuel de gérontopsychiatrie*, Paris, Masson, 1965; Sutter, J. and Taban, L.: "La mortalité, phénomène biométrique", *in*: "*Population*" (Paris) 1952; Sauvy, A.: *Les limites de la vie humaine*. Paris, Presses Universitaires de France, 1961.

[++] The word "cancer" is best avoided because it is not a technical term. It has no simple synonym in medical language.

[+++] Cf. various issues of "The Lancet"(London) July - Oct.1973. and Brass, S.: "On the Changing Patterns of Causes of Death in European Countries" Europ. Demogr. Conf., Strasbourg, 1966, No. 16.

In detailed discussions of increasing male mortality and morbidity related to the causes mentioned above, Gilliand and some other students of the subject have argued that these male morbidity trends are now equalizing as between socio-economic groups in the more prosperous societies in recent periods. They argue that the "new" diseases tend to be more"democratic" in the sense that, although they affect the richer socio-economic groups first they do strike the poorer equally. In subsequent discussion, in Britain particularly, the point is strongly contested on the basis of the Registrar General's occupational mortality tables by social class. Powles and others argue on the basis of the same figures that the burden of the "diseases of civilization" affecting middle-aged males falls heaviest on the poor. *

The disparity between female and male survival accounts for the predominance of older isolated women, widows or women who were never married, but in many cases now unsupported, weak in health and often also in resources of their own that they need to assure them a tolerable life. This phenomenon is more marked in some places than in others. Thus Rosenmayr,in the (1972) paper cited above notes that women not married or no longer married account for more than half of the 320,000 people over 65 in Vienna (in a recent year). The implications of the increase of older, isolated, unsupported and, many of them, disabled old women for social planning and for social security will require closer study by town planners, public health planners, economic and social planners and, not least, social security planners.

The social roles of men and women are changing. Men and women have a succession of roles throughout life. These roles vary as between different cultures. But changes in life chances and mortality of men and women, in the length of generations have implications for social policy and social security that need to be more carefully and rationally considered than they have been in designing social and social security policies.

In our own time, for reasons only beginning to be analysed, the roles of women in society are greatly changing, but this is as yet little reflected in the social

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* For various aspects of this discussion, cf. Calot, G. and Febvay, M.: "La mortalité différentielle selon le milieu social", in: "Etudes et conjonctures" (Paris) No. 11 (1965); Gilliand, P.: Vieilissement démographique et planification hospitalière. op. cit.; Sauvy, A.: Les limites de la vie humaine. op. cit.; Klein, H.: "Anatomy of the N.H.S.", in: "New Society" (London) 28 June, 1973, and discussion in the same periodical in the following four issues.

framework. If kinship ties and communications are undergoing changes sometimes described as "revolutions", if there is a gradual but steady increase in the numbers of older women in society opportunities for new roles have not only to be devised but supported by an institutional framework and by corresponding measures and provisions.

We have so far - and quite deliberately - avoided speculating about the future. But, if we were to do this - and social policy and social security find it impossible to operate without making assumptions about the future - must we not then look at the problems in a very broad perspective ?

We noted above that there is a, seemingly biologically determined, ratio of boys to girls born. Means to affect the human birth rate and the death rate exist and begin to be reflected in statistics. Biologists are advancing in their study of methods to affect the choice of sex of offspring. * The ratio of 105:100 could radically change if parents could exercise some choice as to whether to have boy or girl children. The social implications could be far reaching. ** In the meanwhile, the late R.M. Titmuss is undoubtedly right when he says in his "Essays on the Welfare State" that the problem of social policies for old age is mainly a problem of elderly women.

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* Markle, G.E. and Nam, C.: "Sex Predetermination. Its Impact on Fertility", in: "Social Biology" (Chicago) 18 (March 1971) 73-83.

** Etzioni, A.: "Sex Control, Science and Society", in: "Science" (Washington) 161 (Sept. 1968) 1107-12; Rosenfeld, A.: The Second Genesis. The Coming Control of Life. Prentice Hall, 1969; Gabor, D.: Innovations. Oxford University Press, 1971; Kahn, H. and Weiner, A.J.: The Year 2000. Macmillan, 1967.

4

Demographic Data

Demographic Background Data and Factors.

Statistical data available and needed

Study of the problems of ageing from whatever angle requires as a necessary background factual information on trends. This includes statistical data. The preceding discussion of the "ages" of man and of human life span aimed at showing the need for relevant statistical series of significant data.

At no time in history have there been so many statistics as there are to-day. But statistics that are available can be irrelevant. Further, interpretation at the source of certain existing series of data is sometimes misleading and difficult to check without going back to the source, which is not always possible. On some important questions all that exists is largely of an anecdotal character. In some cases, no verifiable and quantifiable information is collected that would permit conclusions to be drawn from it. In demographic, economic and health statistics problems arise sometimes because past series of data are too crude or, for other reasons not easy to recalculate and arrange by criteria subsequently recognized as significant. Sometimes statistics are collected or interpreted with the object of proving particular preconceived notions, expressed in doom-laden clichés, such as "ageing society", "population explosion", "pace of medical progress", "difficulties of communication in this technological age" and the like.

A genuine scientific approach requires of course clearly formulated hypotheses. It requires also that a hypothesis be modified in the light of factual data about the past or, of additional analytical considerations that appear relevant for the future.

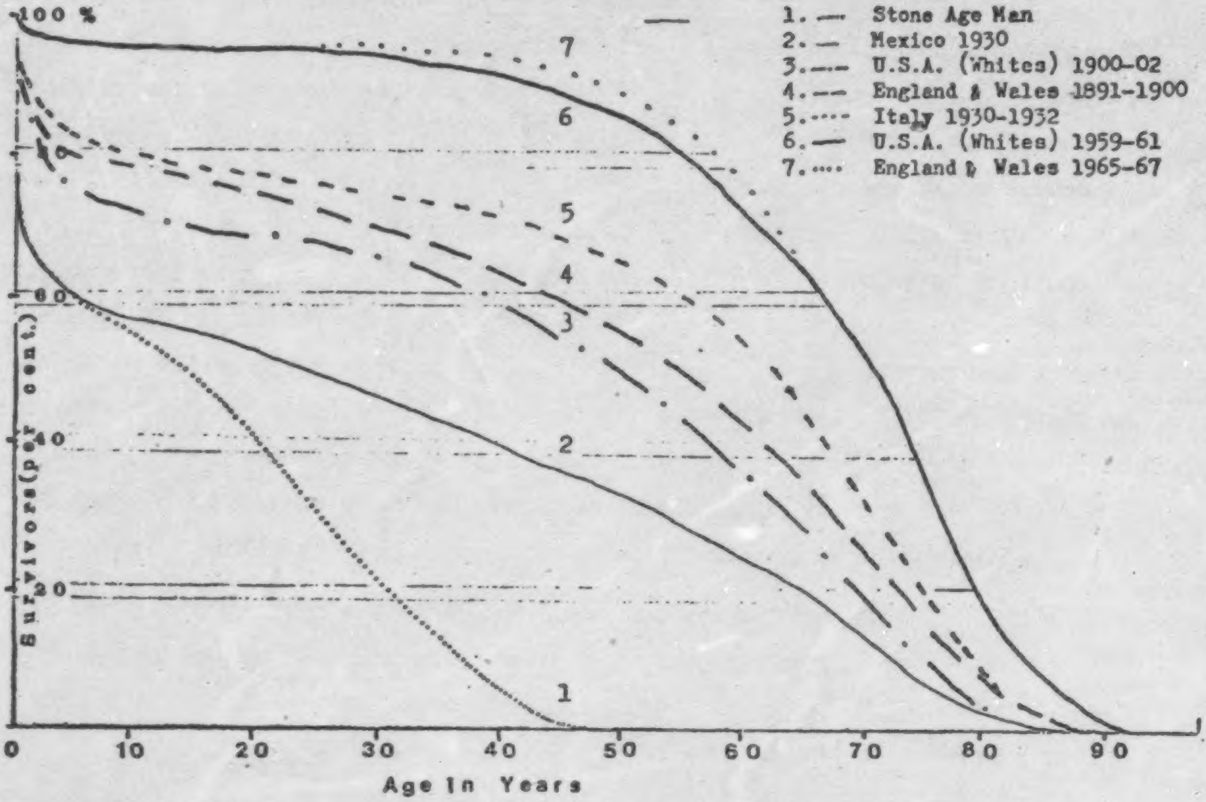
Moreover, inter-country comparisons, even at a given point in time raise difficulties with which everyone who has attempted them is familiar. The greater the cultural and institutional differences the more formidable the task of comparison. But fortunately, conversely the nearer the data needed are to biology or other exact sciences the easier significative comparisons become. The foregoing caveats serve to remind us that, despite the large amount of quantifiable data available, gaps exist and, some of these gaps relate to areas in which quantified information is eminently desirable.

If we are to take a less fragmented view of problems related to human ageing than many observers do, we may, usefully proceed from a broad perspective to the detail on which concentration and detailed factual information and analysis are needed.

The central problem may be deduced from changes in the human survival curve, illustrated in diagram 5. It is based on data grouped together by Dr. Alex Comfort. The diagram shows the proportions of people alive at various ages in different societies at seven periods in history.

Diagram 5 *

Change in the Human Survival Curve



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* Source: Comfort, A.: "Theories of Ageing", in: Brocklehurst, J.C. (ed.): Textbook of Geriatric Medicine and Gerontology. Edinburgh & London, Churchill Livingstone, 1973. p. 47; cf. also: idem: "Longer Life in 1990 ?" in: "New Scientist" (London) 44,679(11 December 1969) p. 550

The diagram brings out strikingly that, over time, a rapidly increasing proportion of people survive from about forty to the mid seventies. If the height of, say, curves 6 and 7 is compared with the height of the earlier curves at these ages the point is perhaps made clearer than any verbal description could make it.

The diagram illustrates graphically the spectacular increases of survival especially up to the age of about 45, in the privileged social groups and the wealthier countries. There, infant and maternal mortality and infectious disease no longer take the heavy toll in premature deaths associated with more primitive conditions of life. It shows also that in such environments an increasing proportion of people reach what Comfort calls the "specific age" (75-80) which remains more or less stationary, despite all advances in the treatment of particular diseases: A biological wall, so it would seem.

Diagram 5 shows that we may be slowly approaching a Gaussian distribution of deaths, a situation where nobody is dead before the age of 70 and nearly everyone is dead by 100.

Before we turn our attention to problems associated with that upper limit we need to look at some problems of mortality and morbidity around the lower of these limits.

Mortality statistics pose less of a problem than those for morbidity. Even so, mortality statistics raise two problems. The first of them, that of standardising the death rate, is relatively easily resolved. When an age group increases or diminishes as a proportion of total population; allowance has to be made for this in considering the importance of deaths - or any other phenomenon for that matter - in the particular age group. Many available statistics either give such proportions or make it possible to calculate them.

More difficult is the question of cause of death. The declaration of certain types of causes of death was made obligatory in a number of European countries in the second half of the xix century. But even to-day there is no systematic declaration of all diseases ending in death. * Apart from accidents and suicides - and even there, one should add a proviso - causes of death in the higher age groups are, mostly, multiple. And, in so far as this is the case, environmental factors are by no means negligible. That applies to environment in a wider sense, not only physical and chemical environment. For social policy and social security policy, such aspects as housing, etc., occupation at earlier ages, possibilities of physical exercise, use made of the possibilities, excessive smoking and drinking at earlier ages, and the causation of this are therefore pertinent in this context.

The direct and immediate cause of death is less important in many ways for gerontology and social security policy than the conditions which made it fatal. This applies particularly to myocardial infarction, cerebro-vascular diseases and those of the circulatory system, hypertension and diabetes mellitus: Conditions

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* Cf. on this subject, e.g., Hanslowka, (Dr.) H. and Smith, (Dr.) A.: "La mortalité et la morbidité", in, "Revue française des affaires sociales" 26,3(1973)147-53

where study of preconditions at earlier ages provide sometimes a chance of provention. This is preferable obviously to search for effective drugs later.

Diagram 5 implies, though it does not explicitly show it, that many diseases which were formerly fatal are none the less still seriously disabling. The remarkable increase, over relatively short periods, in the average length of life - or the average length of retirement, to put it differently - tells us little or nothing more than that certain morbid conditions are no longer immediately lethal.

Looked at from the point of view of dependancy, which is cardinal for social security and social policy, and for health services also - locomotary disorders: Pain, stiffness in degenerating joints may render people housebound or even bedfast. These are not states that usually set in suddenly, any more than deterioration in mechanisms for information input, vision, hearing, etc. These are states that lead more often than not to gradual rather than sudden deterioration. This applies also to loss of memory for recent events.

All these conditions can render the sufferers eventually very isolated from the environment and deprive them of information necessary for every day decision taking and also of elementary pleasures of living which are so fundamentally based on sensations and what we make of them. Depression resulting in inability to do and feel makes it all the more important that these conditions be detected at a latent stage when prevention is still possible. Non-fatal morbidity statistics are far from adequate. This is most serious in the case of morbidity that can become chronic and irreversible.

There is undoubtedly an interaction of cause and effect between dependance, rejection and morbid states. In an age when older people are more numerous and their personal wisdom and knowledge is less generally appreciated, when sets of values of many of the older differ more from those prevailing and when, therefore, many older people have less to offer than in the past, it becomes all the more important to detect deterioration of well being, in its widest sense, at the earliest possible stages. Well being and health must in this context be understood to include particularly stress, strain and tension.

Detailed morbidity records exist for the small proportion of older people in institutional care and, in regard to others, for those periods when they are in or leave hospitals. But practice of hospitals varies widely in different European countries. Untreated illness, even serious untreated illness is of course impossible to record at the time. But data about illness that is treated is not centrally recorded and retrievable at all times. There should be full centrally stored health records for people of all ages. This might be possible as electronic storage facilities become available for such purposes. The increase in the numbers of unfit older people might thus be effectively tackled.

Morbidity statistics designed to aid a better grasp of pathogenesis could help to break down the division between curative and preventive treatment, not only medical but social and, thereby save very considerable amounts of money. This presupposes the co-operation of that disappearing breed, the general practitioners, for preventive screening. * Such screening may indicate measures many of which lie well without medicine. In medicine there has been too much emphasis in recent years on the pharmaceutical "revolution", on transplants and dramatic cures instead of preventive care.

Morbidity statistics based on absence from work data and social health insurance records could be a good source of information. But they can also be misleading. The reasons are obvious. They are based on certificates for absence from work for "medical" reasons acceptable to employers. In some circumstances, and to a limited extent they may reflect a worker's attempts to evade intolerable overload and stress - which can lead to grave debility and illness at a later age. Much depends on the worker concerned and, more still on the certifying medical practitioner, his philosophy of "illness" and legitimacy of work evasion and of course on the thoroughness and accuracy of his diagnosis.

It may be that the increase in absence from work on account of certified illness indicates lower resistance rather than a change in the character of morbidity: This, in addition to social and employment conditions. In the past 20 years or so, there has been a great increase - in one country it is of the order of 30 per cent. - in sickness absence from work, but also a great change in the duration of such absences, notably more short absences. Another weakness of relying too much on such statistics is that states not leading to absence from work are not recorded. This may apply particularly to the more vulnerable part of the population.

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* In Great Britain, the general practioners, that is their Royal College, have set up a statistical service (records and statistical unit) to provide more data, without greatly adding to the G.P.s' work. Standards set permit computer analysis. This helps the G.P.s. But the input must obviously be representative and adequate. This means, doctors must be motivated. If such records do not cover the total population - and it is hard to see, how they could as yet - then it becomes all the more important that sampling methods must be statistically sound. The data need to be relevant to the problems and susceptible to rapid access and analysis.

This is a subject on which much further research is needed, especially if we accept the World Health Organization's definition of health, which includes mental health, that is absence of over-stress.

If older people's needs are to be met and older people are to be kept healthy, basic statistics showing prevailing trends should permit a combination of demographic statistics (notably age structure of population) with morbidity statistics (ill health of all kinds, at given ages - ill health whether fatal or not) and economic statistics (showing the extent to which needs are met). The statistics easiest to obtain are those of the first kind, showing the age structure of the population. This is often expressed in terms of numbers or proportions of people above "retirement age": A notion differently expressed in different countries, e.g. the earliest age at which the insured person may draw some form of pension or, various ages after which earnings from work may in effect lead to penalization for earning income from work, etc.

That such figures or proportions can be seriously misleading is obvious. This is so mainly for three reasons. First, the number or proportion that matters is not the number or proportion of those above working age alone, but the ratio of economically active to economically inactive persons. Those below "working age" should therefore be included under the latter heading.

Secondly, the statistics must make it possible to make allowance in any analysis of such data, for variations in the school leaving age, i.e. the earliest age at which gainful employment is permitted, variations of "retirement age" and for migration in and out of the country concerned.

Thirdly, national statistics may hide sometimes very considerable regional variations. Lastly, but not least, figures can be very deceptive when applied to human problems each of which is highly individual.

A rough attempt to make such calculations for one or two of the economically more "developed" countries shows that the proportion of people of "working age" has decreased less during this century than one might imagine.

Furthermore, meaningful statistical analysis requires interpretation of such data in conjunction with figures showing productivity of labour increases, that is amounts of goods and services that can be produced per person working, given the use of more elaborate and labour-saving capital equipment combined with the requisite human skills. Similarly, changes in consumption patterns can affect the picture.

In regard to health, data showing the numbers of persons of given ages in institutions are not by themselves sufficient. Policies regarding institutional care vary so widely that the numbers in hospitals, long-stay hospitals or old people's homes are scarcely any guide to health of the population concerned. The burden of ill health of older people is variously distributed among public and private institutions of various kinds and the old people themselves and their relatives. Rural/urban distribution of population, housing and planning policy (or the absence of it) as well as social security and health policy provisions (or their lack) may hide much ill health that exists. The concept of"need" requires closer analysis and it will be looked at in another context, below. What is pertinent in the present context is that existing statistics make it difficult to calculate meaningful figures on which to allocate resources and establish relative degrees of importance for different lines of gerontological research and priorities for social security and social policy in regard to ageing.

Moreover, all too often existing institutional settings are assumed as given and independent variables. Should not the aim of gerontology and social policy be rather to examine the adequacy of institutional settings ? Not measured, to be sure, against some absolute and immutable standard, but rather against what is both desirable and possible within given societies.

Since the cost of ill health of older people is growing so greatly and rapidly, analyses are needed to examine the extent to which this may be related not only to the cost of more elaborate equipment and more intensive treatment, and depreciation of the value of money, higher standards of health maintenance, but to housing, living and working conditions of specific groups of people in society. Sampling techniques may bring us nearer to answers to such questions. But longitudinal study, observing and interviewing samples of the same individuals several times at different age levels are probably the least unsatisfactory approach.

Much is written about the "disappearance" of the four-, three-, or even two-generation family. But studies in various Northern and Central European countries - and even in the United States where mobility is said to be particularly high - have shown that, first, closeness of older people to their children and grandchildren has not diminished as much as is often alleged. Nor, secondly, was the older people's dependence on services in earlier times as insignificant as might be imagined. This is a subject that merits closer attention of historians even if data may be insufficient for precise statistical analysis. Such inquiries should show not only facilities that existed and exist, but also the extent to which they were and are known to the people concerned and used by them.

Trends up to the present, as the foregoing considerations indicate, show a considerable number of problems. Very much more difficult still are prognostications, forecasts of likely future trends.

Demographic projections are subject to enormous errors. Frequent revisions of such projections could be quoted to illustrate this point.[*] At different times in the same countries population forecasts have warned of a disastrously declining population and, not many years later of an unacceptably high increase of population. Far reaching policy recommendations are not infrequently based on such extrapolation.

Most apocalyptic forecasts of this kind spring essentially from the habit of basing projections, which are geometric in their effects, on a small number of observations. Thus, a small annual increase in the number of births will over a long enough period, by the law of compound interest,[**] lead to enormous population growth and, conversely, falls below the replacement rate, to the disappearance of population. Many demographers have therefore an inbuilt resistance to extrapolation. Even where the base of forecasts is broader and the forecasts therefore more plausible, there is a school of thought of sceptics who instinctively react by saying that "something will turn up." When forecasters commit themselves to projections later revealed to be widely off the mark one hears phrases such as "overtaken by events". Demographers are after all familiar with Malthus' predictions and their fate.

Population changes appear in fact to occur in cycles which may well cancel out.

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[*] Cf., e.g., Taylor, G.C.: "Optimising the Term of an Investigation into Decremental Rates", in, "Journal of the Institute of Actuaries" (London) 99, I 412, (1973) pp. 69-83; Benjamin, B. and Haycocks, H.W.: The Analysis of Mortality and other Actuarial Statistics. Cambridge University Press, 1970; Select Committee on Science and Technology: Population of the United Kingdom. London, H.M.S.O., 1971; Office of Population Censuses: Population Projections 1970-2010. London, HMSO, 1971.

[**] For purposes of rough calculation, the rate at which a population doubles can be stated in the form of 70 divided by the rate of increase. Thus, an annual increase of 1 % means that population doubles every 70 years; at a rate of 3 % it would double every 23 years.

Changes in migration can upset projections, and many other factors have in fact often proved predictions false. For example, in many Western European countries, in the past 35 years or so, there has been net immigration. But this could of course change. If that happened, the average age would tend to rise and the percentage of older people increase. Diminution of the labour force has in fact been offset by the proportion of women prepared to do paid work. A fall in the birth rate and fiscal changes might well exacerbate this trend.

In countries or regions where young adults emigrate in large numbers, the remaining population may consist to a high proportion of pensioners supported by emigrants' remittances. This may be accompanied by shortages of various degrees of severity in labour intensive skilled and unskilled service occupations. Lisbon and Dublin are sometimes quoted to illustrate trends of this kind. Migration, moreover, is a phenomenon that can take very different forms according to whether it is final or temporary. This has a bearing on resources available for payments and services to retired persons.

Thinking on population questions has been confined perhaps too much within the limits of the nation state. In recent years attempts have been made both to control migration rigidly and, to allow freer movement of people within areas larger than the nation state. This is by no means a problem of total number of migrants. Freer movement of medical personnel, sometimes of relatively small numbers, can affect out of all proportion care of older people heavily dependent on such services. This is in addition to broad economic implications associated with movement of people of specific skills and in particular age groups. While it may not be possible to consider problems such as this in global terms, a framework wider than that of the nation state seems indicated for many aspects of problems that are central in gerontology and social security. What this means for practical policy is that where national population projections are made - and, they need of course to be made - the assumptions on which they are based must be set out clearly and specifically, so that they can be subjected to detailed and informed criticism. Paillat and other gerontologists with an essentially demographic approach, have shown how closely the demographic, economic, social and medical aspects of ageing are linked.

In speculating about the future, the possibility of radical changes in the latter two can hardly be left out, even if we look no more than a generation, that is to say thirty years or so, ahead. For purposes of pension funding that is by no means an unreasonable length of time to budget for.

In social and economic thinking, we are perhaps too apt to take the continuation of the existing industrial society, more or less in its present form, too much for granted - in the way in which generals and strategists often prepare to fight the previous war. This comes to mind as we think of the occupational distribution of the economically active population and the disabling factors and conditions for which social security must pay and be prepared. In actuarial terms it is not at all easy to give the precision needed to basic structural changes. Yet, perhaps the attempt will need to be made. For example, changes in the thinking on education suggest that it may assume forms very different from those now familiar. Instead of being mainly a process of transmitting information to people below certain ages in institutions designed for that purpose and keeping people within those age groups away from working life at that time in their lives it is at least possible that education might assume quite different forms, extend throughout life much more than it does now, with consequent prolonged absences from "work". Such changes might change the notions we now have of pre-working life, working life and the ever longer period of post-working life.

Perhaps more important than changes of that kind are medical and geriatric developments implicit in diagram 5, above. The series of curves in that diagram show that,as a result of knowledge of how to combat causes of premature death, human life span is approaching what some biologists call the "specific age". The curves show that that age has not moved appreciably above an upper limit. The percentage of people just to the left of that limit, in that diagram, could increase. But, some gerontologists have estimated that, if radical remedies were found to cure the remaining three major causes of premature death, heart vessel disease, malignancies and brain vessel disease, overall life expectancy might increase by perhaps five to seven years. People would die, so these biologists argue, soon afterwards of other causes. Further piecemeal public health measures in countries and among social groups approaching the "specific age" would not, so it is contended by these biologists, greatly change this picture.

But experiments with species other than man suggest that the timing of general degenerative changes can be altered, not only piecemeal but fundamentally. Several means are already known whereby the life span of rats, mice, hamsters and other laboratory animals can be extended by about 40 per cent., by using relatively simple dietary or chemical techniques. It has been found in the case of human populations that radiation hastens the physiological (as distinct from the pathological) ageing process. It has been argued therefore that reduction of such radiation could slow it down.

Studies on this aspect of gerontology began by noting that maximum life spans of various species vary greatly, e.g., mouse about 3 years, horse about 40 years, whale 50 years, elephant 70 years, man 100 years, tortoise 150 years. Attempts were made to correlate life spans with various factors, such as body weight, size of brain, various biochemical factors, levels of organization, etc.

These investigations into endogenous causes of ageing had to stop short, until recently, of experiments with human subjects even where the research was with innocuous agents, such as calorie restrictions. This applied so long as observed mortality was the only way of measuring physiological ageing. Such research required a period too long for the human investigators and subjects - and also for the providers of research grants. When it began to become possible however to observe the normal ageing process over periods of three to five years this barrier to research on healthy ageing began to be removed.

It is much too early to draw firm conclusions from such investigations of methods for delaying the entire ageing mechanism in man. If this work leads to one or several mechanisms being discovered, mechanisms governing the human normal ageing process, and if methods are found to retard ageing and thereby prolong vigorous life to the end savings on costs of ill health could evidently be very large indeed. Far-fetched though this may sound, molecular biology, a relatively new subject of research, is developing very rapidly. Those working in that field are inclined to believe that possible agents may well be simple and cheap. If that proved to be so application might be rapid and world-wide, perhaps at a faster rate than the extraordinary progress in antibiotics.

In any event, it is not too soon to consider well in advance, the demographic economic, social security and general social implications of increasing healthy life span of humans. If molecular biology supplied knowledge of means for assuring healthy ageing to something like the percentage increases already obtained in other species, social security and gerontological thinking would need to be revolutionised. Prolonging infirm old age - which is what most of geriatric medicine can do to-day - is one thing, prolonging healthy life is a very different matter.

What is needed therefore is a less fragmented view of human ageing. It may become possible to see in perspective by hindsight much that could not be classified at the time, and to use such knowledge for policy making for the future. Social security and social services are based on particular stereotypes of the meaning of "old". It may become not only useful but necessary to revise these images and to ponder the implications for social protection.

5

Retirement

A Significance of Retirement. **B** Role Change and its Problems. **C** Characteristics and History of Retirement **D** Poverty and Needs; **D(1)** Poverty; **D(2)** Needs. **E** Social Security and Social Services; Some Central Issues of Social Protection; **E(1)** Social Security, Cash Benefits, Major Issues and Trends; **E(2)** Services **F** The Retired and the Defence of their Interests

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* A. Significance of Retirement

Retirement may seem at first sight entirely a matter for various financial, economic, actuarial, institutional, that is social considerations - much in the same way that human ageing might have seemed to be of sole concern to the biological sciences. But on reflection, it becomes evident that the considerable biological aspects of the change implicit in the transition from a situation where an individual's status in society is derived from work to one where it is not can in fact scarcely be separated from the, perhaps more obvious, social aspects of that change. Whether retirement is considered analytically or in terms of translating theory into policy and application, retirement affects primarily the individual human being, and in his entirety, not only the social polity.

In every known kind of human society people have of course lived beyond the age of their best performance, at many tasks, beyond the age when they were most useful to the community or to their own families and working groups. But only in relatively recent times has the proportion they constitute in total populations increased greatly and relatively suddenly.

This demographic change, together with a number of social changes, accounts for the importance of the formal institutional arrangements of retirement.

While, therefore, the idea that people should work less, or differently, as they grow older is by no means new, rather rigid prescriptions as to what they should or should not do after a particular time in life have become crystallised in the institutional arrangements known as retirement only in a very recent period of human history.

That these legally defined arrangements vary so widely and have changed - and are changing so much - is less surprising if we remember how short is the history of these arrangements and how diverse the social framework, institutions and social philosophies of the many societies that make up to-day's world.

Perhaps somewhat paradoxically, there seems to be an inverse relationship between the status of older people in society and their proportionate demographic weight. It seems as if in societies where there was only a small proportion of older people the latter were more highly regarded. There is of course no direct causal relationship between these two trends - if indeed there be any truth in this generalisation. Obviously, the increasing burden on the younger in society might well tend to engender a negative image of age-sanctioned retirement associated with idleness and uselessness. Political weight of the larger numbers of older people could, conceivably, pull the other way. Changes in value systems may well influence and be influenced by such demographic changes.

The variety of arrangements and provisions there are for retirement becomes perhaps somewhat less bewildering if looked at analytically and historically.

* B. Role Change and its Problems

Analytically, the essence of retirement lies in a change of "role". "Role" is a useful analytical tool for the study of inter-personal relationships. Sociologists - Ralph Linton, Talcott Parsons, R.K. Merton and others - borrowed it, first in the late 1930's, from other fields of human activity and study - the theatre, viâ social psychology and social anthropology, but freed it almost entirely from its original connotations.*

Role implies certain relationships and expectations of behaviour of an individual in the social context of those to whom he is linked by work, other activity, kinship or merely in his circumstances of living.

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* It is an interesting early instance of the trans-disciplinary approach, referred to above, on p. ix of the Introduction and on p.97 below (in connection with difficulties to which this approach may lead sometimes.)

Role thus implies a series of such relationships which may be sharply differentiated from one another. Moreover they may be successive throughout an individual's life. In addition, the more complex a society the greater the number of roles an individual has simultaneously. Conflicts develop in particular if various roles of a single individual are not congruent or at least compatible with one another. Role expectations are thus seen as reflecting different norms and values of social systems or reference groups and associated with positions within them.

Age is a kind of continuum, a variable in itself neutral. It may however be one of several variables which, in given social contexts, come to determine roles. Roles can thus become age-specific. The age band with which a particular role is associated may be broad. This is the case in many adult roles which are not defined in terms of such very precise and narrow chronological age limits as there may be for certain child and adolescent roles, and also for retirement.

Allocation or assumption of roles carry with them rewards for successful performance and sanctions against individuals who fail to meet expectations implicit in a particular role. Prior socialisation, that is preparation for successful functioning of an individual in a particular role becomes therefore important. For any social role there are thus two interacting variables among recruits: biological suitability for the role and aptitudes and differences in appropriate socialisation and experience.

In so far as age is a determinant in role expectation and behaviour this may be due to changes in demographic turnover, that is shortening of the length of generations or, in other words, the average age of parents at the time their children are born.

Earlier marriages and completion of families at a younger age of the mother imply that more children have grandparents alive before they themselves reach maturity. This in turn affects the social significance of ageing as reflected in minimum and maximum ages set by systems for various types of social participation, such as the earliest permissible age of employment, marriage, the right to vote or be eligible for office and, later (sometimes compulsory), retirement.

Some rights and privileges, as well as obligations, are however functions of time rather than age as such. For instance, years of qualifying experience, terms of office, seniority in service, etc. Contemporary societies tend to have rather precise age grading in regard to school age but looser age grading for many roles in adult age, except perhaps in military and civil services and in private bureaucracies. It will be seen therefore that age grading and its attendant adjustment problems are not confined to retirement only.

We may note also that certain roles, in particular roles in work situations, are deemed to have higher prestige than others: that is, they are more highly regarded than others, not only by those personally involved, but by the larger group, possibly society as a whole. In work situations in particular, this is often reflected in higher material rewards. Commonly, individuals progress in life from roles with relatively lower prestige to roles where prestige is higher. Where this is not so, tension, individual overstress and conflict result and are not infrequently characterised by attendant biological symptoms. In certain conditions these may become irreversible.*

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* Analysis of stress and tension is particularly important in gerontology. It will be referred to again below. Perhaps A. McLean and Sydney Cobb are right when they urge greater precision. "... Perhaps the concept of stress will remain useful in the same general sense as the concept of infection. But by the same token that no specialist in infectious diseases would be satisfied to diagnose a patient as simply having an infection we should no longer be satisfied to say that a patient is suffering from social stress." One may agree or not with Prof. McLean that stress "should be kept only as a collective for an area of study." But that it needs much further study is not in doubt.

For some of the best work in this field, reference should be made to recent well-documented studies by Lennart Levi, Director of the Laboratory of Clinical Stress, Karolinska Hospital, Stockholm, and by Hans Selye, Professor of Experimental Medicine, University of Montreal. Cf.: Levi, L.(ed.): Society, Stress and Disease. Oxford University Press, 1971; Selye, H.: The Stress of Life. New York, McGraw-Hill, 1956. Kahn, R.L. and Quinn, R.P.: "Role Stress: A Framework for Analysis", in McLean, A.: Mental Health and Work Organisations. Chicago, Rand McNally, 1970. Selye, H. "The Evolution of the Stress Concept", in Levi, L.(ed.): Society Stress and Disease, quoted above. There is likely to be already - or soon - more recent work by these and other authors in this increasingly topical field.

* C. Characteristics and History of Retirement

Since the social phenomenon of retirement involves matters of general social policy it seems not inappropriate to consider the concept analytically. Those who have done so have emphasised as a rule the institutional change in role implicit in an individual's ceasing to be rewarded for his contribution to production or service or, as Castells and Guillemard put it:

> "La retraite est la situation sociale dans laquelle se trouve un individu à partir de la cessation institutionnellement réglementée de l'exercice de son activité professionnelle remunérée."*

or, as Orbach expresses the idea - stressing the aspect of recognition rather more:

> "Retirement represents the creation in modern society of an economically non-productive role for large numbers of persons whose labor is not considered essential or necessary for the functioning of the economic order."**

It will be apparent, inthe light of the foregoing considerations, that retirement - in so far as it is a change from an economically active to an economically inactive role - may represent a more basic change of role than a mere occupational change. But there is nothing in the preceding analysis to suggest that this role change needs to be final or irrevocable. This may somewhat mitigate the health and medical aspects of the change. The point may become clearer when we look, below, at various occupational role changes of women, role changes that can be considered as "retirement".

Before casting a glance at the historical origins of retirement it may be worth recalling two aspects of the notion of retirement implicit in the word itself.

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* "Retirement is the social situation in which a person finds himself on ceasing, under institutionally ordained rules, to work at his paid occupation." (Castells, M. and Guillemard, Anne-Marie: "La détermination des pratiques sociales en situation de retraite", in "Sociologie du Travail" (Paris) 3 (July/Sept. 1971) pp. 282-307.) Cf. also: Guillemard, Anne-Marie: Sociologie des conduites en situation de retraite. Paris, Mouton, 1972.

** Orbach, H.: "Normative Aspects of Retirement", in Tibbitts, C. and Donahue, W. (eds.): Aging Around the World. Social and Psychological Aspects of Aging. (Proceedings 5th Congress, International Gerontological Association, San Francisco, 1960) California University Press, 1962, pp. 53-63.

While both aspects imply the idea of withdrawing, giving up or being removed, there is nonetheless a distinct difference between: retirement from and retirement to. The first of these connotations is negative in as much as it suggests a role abandoned. Pressure for "retirement from" (i.e. emphasis of negative retirement) may arise primarily from concern of younger wage or salary earners to secure for themselves some of a limited number of well remunerated jobs, rather than from a general concern for protecting health and well being of the older working members of the community.

Where retirement is tantamount to a prescription that an employed person may not - i.e. is not permitted to - work any longer the negative aspect is clearly seen to be dominant.

Where on the other hand emphasis is on an individual not having to - i.e. not being required to work any more - that can be taken as implying that some prior thought may have been given to providing him with a new, alternative, economically and socially adequate role instead of the one he is permitted to abandon. This can be seen as the positive notion of "retirement to" in that at least it opens the door to the individual to let him find such an alternative himself.*

This positive aspect of a satisfactory alternative role may be present even where a person abandons a working role for reasons of ill health, i.e. because he feels he can no longer accomplish a(n immutable) task. In such cases effects on mental and even physical health are by no means negligible. All these strands are visible in modern retirement experience. People retire because they may not, need not or cannot work any longer.

Looking at retirement historically, there is little doubt that the negative impetus to retirement seems to have predominated at first.

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* Examples abound. For, those with economic and also intellectual resources are particularly literate. Let us quote one particularly charming one of an Emeritus Oxford Professor of Medicine. (Clinical professors at Oxford retire at 67.) L.J. Witts writes, "... Friends often ask me what I do now that I have retired. I fob them off by saying I write a little, for it is difficult to explain how good it is to have no duties and to have time to see this world, so various, so beautiful, so new, as Mathew Arnold described it." (Letter in "British Medical Journal", 4, 1973, 5895 (28 Dec. 1973) p. 781.)

Take retirement in the narrow sense: realising of course that it is not just a matter of a retirement pension but depends, as Saxer* and others have shown, on a wide range of social protection for sickness, accident, invalidity, survivors, dependents and so on: realising also that retirement had very diverse origins in different countries;** mainly in the nineteenth and twentieth centuries. It is none the less interesting to note here its origins in one specific environment, the British public service in the late seventeenth century. Retirement there arose, as Titmuss' research shows,*** by no means as an acceptance by employers and the public at large, of responsibility for the welfare of the older people in declining years, but rather on grounds of what we would now call "declining labour productivity" and also out of the younger men's impatience to advance in their own careers.

It appears that a public pension was first granted in England, in 1684, to a certain Martin Horsham, a "landwaiter" in the port of London, on the ground that he had become

> "... soe much indispos'd by a great melancholye
> that he is at present unfit for business ...."

In the period 1684-1712, we may note, following Titmuss, three main phases in the development of retirement pensions in the British civil service. The first is marked by the sale of his office, by the holder to a successor; the new incumbent thus buying the office by paying a lump sum or by periodic payments to the previous office holder. In the second phase, the payment of pensions was taken over by the public authorities who were then charged with the cost of the pension: the cost of individual pensions remaining however chargeable against individual positions. The third phase - reflected in a Treasury minute of 1712 - introduced the concept of "average", by the establishment of a superannuation fund. This marks the beginning of a notion of a kind of collective responsibility of younger men for retirement pensions and some provision for the cost of infirmity, sickness and old age of those whose places of employment became thereby available to them. Changes of the system in the eighteenth century seem to have been inspired more by desire to ensure equity of cost distribution among younger civil servants and the need to avoid corruption than by a desire to create new roles for the retired. But from 1810, when a non-contributory superannuation scheme was established for the British civil service by an Act of Parliament, modern issues of pension planning became discernible. Various amending Acts during the nineteenth century vouchsafed to retiring civil servants without substantial private means, tolerable material conditions. This may be seen as a shift away from what we have called the "negative" connotation of retirement - even though it does not go far towards the notion of seeing retirement as something positive, securing a new role for the retired.

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* Saxer, A.: Social Security of Old Age Pensioners. Preliminary Report to the XVIIth General Assembly. Geneva, International Social Security Association, 1970 (Document ISSA/XVII/II).

** For a note on origins of pensions, cf. p.110 below.

*** Titmuss, R.M.: Commitment to Welfare, London, Allen and Unwin, 1968 (Chapter XVII "Pensions and Public Servants").

It might be rewarding to make a methodical study of the history of old age protection examining the various early schemes* to evaluate the extent to which the positive aspects of retirement were at all present at the inception of any schemes.

Older people themselves have had a lesser part in shaping gerontological policy - in any country - than severe economic crises and depressions and politicians' apprehensions of them. No doubt, lack of scientific knowledge and also absence of good leadership among the retired and near-retired may go some way to explain this.**

In this **study** no attempt is made to describe in any detail the diverse schemes throughout the world for old age and retirement assurance,*** welfare and services.

They are modified so often. The detail is apt to be confusing. Any "snapshot" description for any given, recent point in time, however accurate at that moment, is liable to be out of date almost before it is printed.

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* Cf. p. 110-111 below.

** Cf. an editorial by J. Kaplan in the "Gerontologist" (St. Louis, Mo.), 12, 3, I; (1972) p. 212.

*** Their salient features are to be found in: U.S. Department of Health, Education and Welfare, Social Security Administration, Office of Research and Statistics: Social Security Programs Throughout the World. (Now published every two years.)

We will therefore attempt below* to focus instead on what appear to be major problems of principles, concepts, procedures: but, with the human person, the pensioner, not the pension as the subject. These questions concern of course the different forms and alternative kinds of benefit: who is entitled to how much of what, when and in relation to what and under what conditions, who pays ... Related to such questions are information and knowledge of cash benefits and services available to those needing them. It will mean considering, at least in passing, differences in goals and objectives and effectiveness of various methods in attaining them. Be it noted here, in parenthesis, that effectiveness expresses better the notion of measurement than does the financial and administrative term "efficiency".

The aim is thus to consider briefly some principles and central issues, and to observe some present trends, as best we can. A picture of the direction of major developments could easily be obscured by a mass of bewildering detail.

The aim is not either one of search for the ideal solution. "The notion of the ideal solution is a mischievous myth", as the sociologist W.E. Moore has remarked - adding however, by way of compensating for this somewhat stark formulation,

> "... The beginning of wisdom would be to prepare for an uncertain future and abandon the notion that individuals flow through a stable order."

To reject the search for the ideal solution in all environments is not at all to spurn the study of interesting features of particular schemes, nor to abandon the attempt of measuring their effectiveness in attaining declared objectives.

Pensions policy - and, to a somewhat lesser extent also other aspects of social provision for older people - requires long-term planning. For this reason alone it needs to be looked at in very broad perspectives of social policy and the social framework - and that, in a more than immediate future.

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* pp. 98-137 below.

In this daunting task we do well to keep in mind two social trends that have a bearing on such provision: first, the changing social status of women and, secondly, greater fluidity in occupational roles generally - not only of women.

The second of these trends is still rather obscured by a countervailing trend of increasing specialisation: a trend that is projected even into what Alain Touraine and others refer to as the emerging "post-industrial" society. The trend towards greater occupational mobility and fluidity can be explained by increasing rapidity of technical change and other factors.

It means that occupational roles of a single individual are apt to change far more during his life-time than they did in the life-time of the preceding generation. Skills become obsolescent and obsolete. Those unable to adapt their skills to new technology or fail to acquire new marketable skills lose their occupational roles. This represents a constant threat for many, of forced retirement from occupations and jobs and even from professions that call for new skills and aptitudes.

Such retirement is not final or permanent for men in the younger age group - or at least so they hope. Many would indeed not recognise such termination or change of occupational role as retirement. But it has many features of retirement as defined above,* except that it is not "institutionally ordained". Institutional provision is geared, on the contrary, to countering such retirement. Its traumatic effects on health may not be dissimilar from what is usually recognised as the only real "retirement": that associated with age. To counteract the danger of such involuntary early retirement - which neither the community nor the individual are well equipped to bear - far-reaching changes are contemplated in education and other forms of socialisation.

Preparation for an occupation envisaged as remaining similar throughout "working life", except for gradual upward progression, shifts to lifelong or permanent education, no longer age-specific. But the implications for rather rigid systems of education and narrow vocational socialisation are as yet scarcely beginning to be translated into changed institutional arrangements. Further progress along these lines may ease some problems of retirement roles.

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* p. 59 above.

Retirement of women is perhaps understood more easily as implying not only abandoning a role, but rather as assuming another role for which prior socialisation is required (and of course also other social provision).

Retirement of young women from occupational roles - on setting up house or on bearing and bringing up the first child - may be permanent and final. But increasingly, institutional arrangements are modified so as to allow housewives an easier choice of assuming their former occupational roles or of assuming new occupational roles when the last child is able to do without the mother's constant attention. This is partly, but only partly, a matter for psychological and biological considerations. It is facilitated if material inducements are offered for these women to retire once more from a major role. "Retire", in cases of this kind, may have the positive connotation referred to earlier.

As a result of demographic trends, women in the so-called industrialised countries tend to "retire" from their role as mothers some twenty years or so before their husbands retire from "work". Consequently, by the time the latter retire their wives have had practice at filling some kind of new occupational role. This is however unlikely to be a role model for the retiring husband.

The married woman, frequently somewhat younger than her husband, is rather preparing herself, unwittingly perhaps, for the widow's role that may well await her. Better socialisation for normal change of roles among women may be a key to what is probably, on the whole, a smoother transition in role changes. Might this not account partly for longer lives of women than of men?

On retirement from one role there is for many women wider scope for individual adaptation and such retirement is often less abrupt and complete. A woman who is, largely or entirely, a housewife seldom retires entirely from that role until she leaves home or is dead.

Satisfactory social provision for the housewife in her own right is recognised increasingly as necessary. It may pose social security problems of a technical kind. They are not insurmountable. If such payments are, e.g., retirement and not age pensions, and if level of benefits is determined by contributions paid according to income, housewives might well be privileged in comparison to other contributors in that they themselves could determine the size of their own "income".

The problem changes if pensions are looked at not as a form of assurance but rather as payments made out of the community's general resources in accordance with criteria such as age or need*. Any test of a housewife's retirement is bound to be somewhat theoretical and abstract. "Retirement" would acquire a different meaning from that used generally for "employed" people.

Problems of a very general character are raised where payments to older people are based on principles of income redistribution rather than on insurance principles. These are broader problems than those of housewives.

Many social security schemes incorporate in fact both redistributive and insurance principles. In so far as redistributive principles imply taking from those best able to pay in order to give to those most in need, this can lead, logically, to tests of need and potential recipients' means to meet those needs without recourse to public resources. Hence to the hotly debated means test: first, a test of the claimant's own means to meet his needs and then, logically, to tests of means of others considered to be chargeable before the community's general resources can be called on to pay. It is particularly the latter type of tests which are anathema to many.** It has been described as "putting on the poor the burden of keeping the poor" or in even bitterer language.

Whether or not there are tests of the means of potential beneficiaries depends ultimately on the philosophy of disbursing monies and whose monies are being disbursed. If a contributor receives what is his own, he has, logically, to establish only his right to receive it. The question of what means he has would not seem relevant.

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* Some aspects of questions of analysing and establishing "need" are considered on pp. 81 - 92 below.

** It is useful to look at this matter here in this very general context. It will be examined on pages 100, f. and 119-21, below, in the context of current social security issues and trends. As a highly controversial issue it occurs inevitably in various discussions on different subjects throughout this book.

Some advocates of adherence to insurance principles argue that these principles are a safeguard for the contributor's right to benefits, contractually determined and therefore subject only to rights tests.

But Aneurin Bevan, who did much to establish Britain's welfare state after the second world war, argued, in 1955, that not only means tests but even elaborate tests of rights were not worth while. The use of the term "insurance", he held, was a misnomer: when everybody was in a general scheme, when insurance was general and compulsory, the system was in fact no longer based on the insurance principle; it involved a poll tax.

> "To say that a man is debarred because he is just one contribution short", Bevan contended, "is a lot of nonsense, you know. The amount of money which the State spends in order to find out how much we are short of contributions is far more than it would cost the State to pay the benefit without bothering ... People say, 'It is necessary for us to defend the fund. We must keep the fund on an actuarial basis ...' That is a lot of nonsense. There ain't no fund. It is absolute nonsense ... Once you raise money on such a scale as this you have got to invest it. When we had this discussion before in the Cabinet, some of my comrades suggested that we meet the increased cost of a National Health Service by making a contribution from the insurance fund which had then grown to enormous proportions. Of course, the Treasury had to tell us, 'There is no fund.' The so-called 'fund' was invested in the pits, in the power stations, in the new towns, in the houses, in the factories, in the refineries. There ain't no fund."*

Foot, Bevan's biographer, adds:

> "The speech drew another rapturous reception, even if the appeal not to worship these 'old actuarial gods' fell then as it falls still (1973) on deaf or too reverent ears."

The quotation reflects the strong feeling that existed. Whether this is now only of historical interest and relevant only in the British context may become clearer when we examine these questions in other contexts later. It is true that Bevan was thinking mainly of the Health Service. But in fact his speech was about "unproductive" people in society, about inequality, poverty and needs in general.

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* Foot, M.: Aneurin Bevan. A Biography. Vol. II. 1945-60. London. Davis-Poynter, 1973. p. 493,f.

Questions of poverty and needs arein fact not as complex as they may appear at first sight. But they raise basic questions. They are discussed below. The point to be made here is that they are related to "technical" questions of who pays and the mechanics of collecting wealth and distributing it. The questions of the subject's free choice - i.e. the free choice of the person who is old or sick - that it raises enter also into the issue of flexibility of pension age and indeed into many other issues related to human ageing and social provision for it.

There are, broadly speaking, two schools of thought. Those who fear that any concessions made to people in need would lead to abuse and undue calls on the industrious who are taxpayers and, as such, have to bear the cost, out of money earned by sheer hard work. Such hard work and thrift, so the argument runs, would thereby be discouraged.

The opposing schools of thought hold that in any schemes for alleviation of poverty the real danger is not so much abuse by a few obtaining more than their due but failure of schemes and administrative apparatus to induce old people who need help to take up what is theirs by right. The issue is sometimes presented in the somewhat more academic form of universality of payments versus selectivity.

In practice the problem does not present itself in this absolute either-or form. On the one hand, costs cannot be ignored; on the other, a society cannot rid itself of the responsibility to meet old people's needs. Perhaps the view sometimes taken of costs, in terms of the industrialist's day-to-day balance sheet, is too narrow. But perhaps also a better and fairer system is required to assess needs.

In the long-run perhaps the solution lies along the line of role change for the ageing individual. By altering social and institutional provision in such a way as to make for smoother and less painful change of roles the result might be to reduce need. This requires to be worked out more than it has been so far. The effects of successful solutions might be measured in terms of the retired person's health.

In this chapter a trend has been noticed for conditions of retirement to worsen - unless there are strong countervailing forces - as the proportion of retired and older people in total population increases. It has been noticed also that the very notion of retirement contains certain negative connotations and elements which prevail over the positive, intrinsically weaker ones unless this is clearly recognised and translated into policy. Role changes of housewives may provide clues as to the direction of policy, so that such changes may be made less abrupt, less once-and-for-all: less final, where this is desired but, above all, by introducing a certain flexibility, to take account of varying individual needs and desires.

Where there is a trend in social protection from insurance towards redistributive principles the result may well be better protection for those whose needs are greatest and whose incomes lowest. But this is not, by itself, enough to make change of role less abrupt nor to take account more of the individual's wishes.

The question of freer choice as to age of retirement thus acquires added importance. Part of the same problem is the option, for those who desire it, to do some paid work, in the earlier as well as the later years of retirement. Under some systems this problem does not arise. In all cases, it is clear that the expressed wishes of the retired distort true preferences, unless fully adequate social protection above a particular chronological age is freely available to all. Such social protection needs to be, as has been shown, very much wider than pensions or even income maintenance as a whole.

Rigidity in pensions and other social security schemes is being examined in some countries with a view to introducing greater flexibility for earlier and later retirement. More evidence on this point has accumulated since the studies made under the auspices of the Organisation for Economic Cooperation and Development (1970) and the recommendations by the Consultative Assembly of the Council of Europe (1972). The question might therefore be further scrutinised in the light of additional data - perhaps within a broader frame of reference.

Many of the inquiries, conducted by means of questionnaires and interviews, have reached the conclusion - which it was not difficult to anticipate - that people in arduous, exhausting, monotonous and unsatisfying work retire earlier, where the opportunity is offered, even if financial circumstances are unattractive. Increased productivity of labour or capital can be made to benefit the worker in the forms of a shorter working week, reduced annual working hours, longer paid holidays, higher wages, etc. - as well as in the form of earlier retirement. But many inquiries have shown that substantial majorities of working people questioned have opted for the latter.

The evidence of these inquiries is less conclusive than it may appear and calls for more rigorous scientific methods. Most of these inquiries are not comparable with each other. The results obtained depend, clearly, on the ages and economic and other circumstances of those to whom the questions are put, on the precise phrasing of the questions, etc. Many of the people questioned had only the vaguest ideas as to options, other than retirement or continued work under the same conditions, open to them or even erroneous ideas as to facts on both alternatives. In some inquiries final reports are clear and specific on these points; in others the reader is left guessing.

A choice between continuing in full time, unsatisfying work or retiring without adequate social provision is not a fair one, particularly if retirement is complete and irrevocable.

But the problems posed go far beyond those of retirement. They touch the basis of industrial society: whether the worker must adapt to work and conditions under which it is seen as having to be done or whether man himself in his capacity as worker is the subject - not the object - of that society.

* D. Poverty and Needs

* D1 Poverty

The keepers of the economy's purse tend to stress that society's resources to meet needs are inevitably severely limited. Those imbued by a social security philosophy will emphasise the debilitating character of poverty and of unmet needs. They may point to the social - and ultimately also financial - cost to the community of not satisfying basic human needs. Various compromises are arrived at. But, in the light of what criteria? The subject merits consideration because, for social security, elimination of poverty is a major objective and, for general gerontology, resolution and canalisation of pathogenic stress and tension associated with abject poverty are no less paramount.

In social security, elimination of poverty requires detailed study, for several reasons. Not the least important of them is that the proportion of the average person's life when he is not actually receiving income from his own work is now between one third and one half, in the richer countries.

In gerontology, it is worth examining the proposition that low income leads to low morale which, in turn, is more often than not causally related to ill health. Health can hardly be considered an entirely independent variable. Tools of multi-variate analysis are now available to test propositions of this kind. That the old who lack access to specific resources needed show higher incidence of specific diseases is a proposition which needs testing in a rigorous scientific way. Whether it is true, as has been asserted, that three out of ten of the retired (in the richer countries) are poor, as against one in ten of the younger, depends on definitions of "poor".

Less is known about incidence and causes of poverty among the retired and old than might be supposed from the amount written around the subject. To what extent does poverty persist throughout the life cycle? Are the poverty stricken pensioners of the '70's the same people as the unemployed of the '30's and, as those who grew up in low wage families at the turn of the century? One may suspect the answers. But there is little hard evidence.*

Why should there be so little factual information about incidence and causes of poverty? Are there not enough definitions and descriptions of poverty among the old? Are there not statistical indicators and precisely defined "poverty lines"?

Definitions of poverty are not lacking. But they tend to be either very general and raise therefore more questions than they answer or are trivial and arbitrary. If, for example, we define poverty as an "insufficiency of the material necessities of life", we are left in doubt as to what is "necessity" and what is "sufficient". To many it is therefore apparent that poverty is related not to some absolute standard but to conventions in the society in which it occurs. A better definition is therefore that: poverty is inability or failure, of an individual or household, to sustain the minimum customary level of living at a given time and place. This brings into the definition the notion that there are items (such as food, clothing, housing, fuel, etc.) for which there are _minima_ considered necessary for sustaining life at a _particular place_ and at a _particular time_. The definition tells us nothing about how to calculate such minima. It says nothing either about income and obligations or about outside aid required when the individual or family unit can no longer cope. Definitions of this type make the point that poverty is relative: hence measurable by economic "indicators". In recent years attempts have been made to add to these a wide variety of "social indicators".

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* Jackson, D.: Poverty. London, Macmillan 1972, and Atkinson, A.B.: "Who are the Poorest?" in "New Society" (London) 23 543 (1 March 1972) 466-68.

Doubts about poverty being defined in relative terms led to a search for absolute criteria for a level below which minimal physiological health and efficiency could not be achieved. At first sight, this looks as if it would be desirable and indicative. A nutritional minimum, perhaps in terms of calorie value - with allowances for vitamins and other measurable aspects of diet - seemed the easiest absolute criterion of this kind to establish. Attempts to lay down such minima have been made since the nineteenth century.* The aim was to eliminate subjective and conventional elements in the assessment of basic poverty. But, in fact, there is no agreement among physiologists or bio-chemists as to what constitutes _the_ nutritional basic minimum. And, nutrition is, as we have observed, relatively easier to deal with than other aspects of life. At a level near starvation, poverty lines of this kind need to be used to determine numbers of people starving and amounts of various items of food to be brought in as aid.

But there is little doubt that in the richer societies a conventional rising minimum must define poverty. Comparisons between poverty in a single area at widely different times or between richer and poorer areas at the same point in time are, to say the least, very difficult.

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* For social security purposes, amounts paid under various measures are often based on such minima, described as a "poverty line", e.g. "supplementary pensions" in Britain, "revenu garanti" in Belgium, "minimum social" or "aide sociale" in France, "social pension" in Italy, "the means-tested assistance allowance" in Holland, "individualised social assistance" in Sweden.

An objective minimum, in the sense of an unchanging conventional standard, measures not what is socially acceptable as "poverty" in the richer area at the later time, but only the differences between areas and points in time. Periodic "rediscovery" of poverty in countries where levels of living have improved markedly is due to lag in adjusting standards to changing bases of assessment.

Consumption might appear a good measure of poverty. Attempts to measure it by income expenditure go back at least to the use of Engel's law (1895). It stated that the proportion of total expenditure on food or more generally on basic needs varied inversely with income. Indeed, this law did permit some very rough comparisons. But it became clear that it was subject to important reservations in regard to qualitative differences and patterns of expenditure as between different age and occupational groups of a population.

Statistics of income distribution, likewise, should be used with caution, especially where income is partly non-monetary. They cannot replace specific inquiries into the incidence of poverty.

Without minimising in any way the importance of the material aspects of poverty, it is well to remember other aspects such as inferior rights, status, opportunities and the sense of such inferiorities expressed in frustration and resentment. They elude almost entirely any attempt to quantify them or compare their intensity at present. As for comparisons over time of such aspects of poverty as loneliness, these are virtually impossible because only recent measures of relief of poverty have laid bare such aspects of poverty which it previously smothered like a blanket.* Purely objective measurement has its limitations in dealing with human feelings. A man who feels ill is not necessarily helped by a doctor assuring him in a matter of fact way that he is in perfect health. He may take the first opportunity to change the doctor.

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* Seabrook, J.: Loneliness. London. J.M. Smith, 1974.

The Beveridge report, thirty years ago, laid down absolute subsistence minima for essentials. It prescribed, in terms of money, quantities below which no individual should be allowed to fall. It exercised a powerful influence on social security thinking for a generation. The fundamental idea was that poverty could be anticipated and avoided by compulsory insurance, general health services and children's allowances, for all members of society.

More important still are perhaps the very painstaking and detailed empirical investigations of individual indigence and its causes by Charles Booth (Life and Labour of the People of London. 17 volumes, 1889-1903) and Seebohm Rowntree (Three Social Surveys of York, 1900, 1936 and 1950 and Poverty - A Study of Town Life, 1901).* These and a very few others can be considered the first major scientific studies of poverty, in that they searched, on a basis of thorough scientific analysis of thousands of individual cases, for the causes of poverty. The scientific study of this subject dates back therefore at most two to three generations. In recent years the subject is receiving wide attention**

Today's "Family Expenditure Survey" and "National Food Survey" in Britain provide yardsticks in that country for quantified expression of poverty.

Yet, for all the statistics that these surveys and similar studies in other countries provide, the actual content of poor people's lives is still fairly uncharted territory in this last third of the twentieth century.

Surveys of this kind, even the otherwise excellent surveys of recent years, convey very little of the actual experience of being poor and old, and of all the stratagems, frustrations, humiliations that it entails.

Little is in fact known - except on a slender base of a few small scale recent surveys - about what kind and how much meat a single old person actually buys, what sort of clothes a pensioner's family with a disabled and incontinent parent can afford, how the retired poor manage to live in delapidated dwellings, how they stretch out and how they would like to spend their "incomes".

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* Kincaid J.C.: Poverty and Equality in Britain. Penguin, 1973, argues that Rowntree's subsistence level was made more severe by Beveridge and that the Attlee government's subsistence level for national insurance and national assistance made it severer still.

** Cf., e.g., the symposium of 14 papers: Townsend, P.(ed.) The Concept of Poverty. London, Heinemann, 1971.

Surveys made in recent years show that it is not at all easy to detect the old who are poor. More than for many of the younger poor their struggle is all the harder in fighting off the appearance of being poor. Because they cannot buy in bulk but only in small quantities, from day to day, they pay more, not less, than the better off.* Money for emergencies is lacking. Many buy clothes on instalments and, therefore, at a much higher price. Because the old poor are compelled to buy goods that are cheap they buy things that do not last. Many find it humiliating to apply for assistance benefits which depend on proof of need - which exist in many countries. Savings dwindle away and bring in little or no interest. Rents and housing costs rise. Rent, mortgages and other forms of "committed" expenditure cannot be cut in many situations. Accommodation they could pay for out of their diminished income either does not exist or, where it exists, they may not know of it. Where they know of it they may not succeed in obtaining it.

As they have no other means of getting about they depend on public transport. Fares rise. Even reduced fares, where such exist for pensioners, are high in relation to income. This limits choice in shopping, even for those physically well and mobile enough to get about. Discountsand supermarkets are often sited to suit motorists and thus far away. Holidays are an unattainable luxury for those who have to stint themselves of necessities. The struggle not to fall in arrears with rent, insurance and other vitally essential payments becomes more and more difficult. Many live in slum areas where there is high delinquency and other problems that add to the dangers and worries of life. Heating arrangements are often primitive. Fuel costs rise. Much of the heat, dearly paid for, is not retained in the room but goes up the chimney. Conversion to cheaper and less wasteful heating costs too much. Cases have come to light where old couples stay at home because they have no clothes to go out. Large weekly or monthly payments are the only sources of emergency finance - but only at the risk of eviction or having power cut off.

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* J.A. Hobson, in 1891, found a family making seventy-two purchases of tea in seven weeks. Recent studies show that this kind of problem has not disappeared.

Many of the statistics commonly collected are inadequate substitutes for detailed surveys in depth and so convey misleading ideas of how poor old people live and spend their incomes and why their spending patterns are as they are.

General criteria for combating poverty of retired people - such as were established at the two American (White House) Conferences on Ageing, in 1961 and 1971 - stated generally acceptable goals for reducing poverty. They appeared to secure wider public support for goals agreed on. The general economic constraints to policies proposed at conferences of this kind are usually revealed only subsequently. This may nullify many of the good intentions declared and apparently widely accepted by the public in the first flush of sympathy.*

Statistics that exist are useful in showing that poverty is worst among the very old and the very young: the most defenceless in the population. The statistical approach and "poverty lines" may not fully document what poverty means. They may however provide precise numbers as to people; but on criteria that are not satisfactory. Such ways of measurement understate generally the hardship and misery of the old. Surveys lead to a better understanding of the problems of poverty of the old and the very old. Surveys may help to devise better questions on which to collect statistical information. A broad rather than a detailed understanding is ultimately required to attack the most relevant features of poverty of the retired. Those who have to propose policies dislike super-abundance of data. They are right in this: it offends against the computer analyst's "law of requisite variety". But the descriptions and studies in depth are necessary to determine what are the data that need collecting. They are not necessarily the data that are being collected to determine what is required in the way of income to afford a "decent" standard of life. Whether the needs of the old are less than the needs of the young, as is sometimes said, in what ways old people are and feel deprived does require detailed studies and surveys. Existing studies suggest that it is harassing for older people to find themselves unable to maintain standards of life to which they were accustomed when still earning - a not uncommon predicament - associated with the abrupt fall in income after retirement in industrial society. An even more serious problem we shall need to examine is the predicament of those whose level of living was utterly inadequate *before* retirement.

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* A survey in Great Britain, in 1970, found that 67 per cent of the public agreed with the proposition that too many people still lived in poverty. But only 24 per cent thought that spending on the poor should be one of the first four things that most needed to be done in the 1970's. (Barker, P. and Hanvey, J.: "Facing two Ways. Between the 1960's and the 1970's", *in* "*New Society*" (London) *14*, 374 (27 Nov. 1969) 847-850.)

The more visible, and often cyclical, poverty in pre-industrial societies was more widely diffused. It gave way to more hidden poverty of isolated individuals as society became more industrialised and, especially more concentrated in amorphous metropolitan agglomerations. Industrial society was collectively so much wealthier. It was so manifestly in possession of material resources with which to abolish penury, destitution, hardship and misery. Hence, the resentment of the aggravation of these iniquities. But although poverty was widely condemned and declared to be unacceptable[*] in rich countries, this has led by no means to its disappearance.

Yet there is a secular trend, first to alleviating poverty, then towards preventing it. The former may appear simpler and easier at first sight, even if costlier in the long run. The latter demands understanding of causation. The history of pensions - a subject yet waiting to be treated in the way it merits by some bold gerontologist or social historian - might show this transition. In the earliest phase pensions were not at all designed to replace income from work but rather to serve as a "floor" of income, together with savings. There was in this already an unmistakable aim to associate retirement with prevention of poverty, if only for privileged minorities of the population. Once the state took over from voluntary associations, as it tended to do in many countries, once the philosophy of the poor law and charity gave way to social security and to a theory of rights of old people, financial public responsibility for the prevention of distress among the old was thereby explicitly recognised. Experience of the industrial state, characterised by rising levels of real national wealth, has not seemed to increase, of itself, the likelihood of better financial provision for old age and retirement.

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[*] "Positive" features of poverty are rarely extolled. But there is the somewhat sinister point that poverty encourages expansion of respectable professions, occupations and jobs, such as social work, public health, certain types of journalism and social sciences, as H.J. Gans of the Columbia University Center for Policy Research observes (in "Positive Functions of Poverty" *in* "*American Journal of Sociology*" (Chicago) *78*,2 (Sept. 1972) 275-89). The observation is not altogether facetious. A snide remark by S. Encel in his study of *Class, Status and Power in Australia* (1970) raises doubts as to how general is the inacceptability of poverty, "... The search for equality of the redistributive kind breeds bureaucracy, breeds authority; and authority undermines the authority which bred it." One wonders whether societies without these "egalitarian myths" are really free from these unpleasant features. But, apart from such academic sophistry, there is a not uncommon trend to simply deny existence of poverty or minimise its prevalence.

The reason may well be essentially the emphasis on specific kinds of luxury consumption in this type of society: a feature now increasingly attacked. There are as yet only few signs of this trend being reversed in the last quarter of the twentieth century. Two other, related, points are worth recalling in this context. First the difficulty of realistically discounting the future in times of great uncertainty, wars, impending wars and inflation. Secondly, a lingering faith in private provision - if not through savings, then by occupational schemes for economic security in old age. But occupational schemes are not in any valid sense "private provision" as is often implied. They require in fact public enforcement and guarantees.

The relative, rather than absolute, character of deprivation, a point referred to earlier in this discussion, seems crucial to any concerted effort for the prevention of poverty. If poverty is characterised by low income, low access to consumer essentials, health care and the like, this means that it is "low" not so much to an absolute zero at which life ends, but in relation to levels of living in a particular society. This is felt subjectively. It makes the retired and old feel unfairly and unjustly treated and makes them embittered. In that sense it is psychological.

But it is also objective.* And it would therefore be a mistake to treat it as a purely psychological reaction in the old person's mind against the principle "unto every one that hath shall be given."

That poverty is relative rather than absolute is a fact which cannot be overstressed. Notions of what must be considered "essentials" for living have changed, as scientific and medical knowledge and the community's resources have increased. Hence the "lowest acceptable standard" is higher than it was in times when resources were less and equipment more primitive. The most extreme instance is medical care. People whose lives it was impossible to save can in many cases now not only be saved but even restored sufficiently to lead normal lives again. But in regard to housing conditions, cleanliness and many other aspects of living minima acceptable have risen also.

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* Cf., Wedderburn, Dorothy(ed.): Poverty, Inequality and Class Structure. Cambridge University Press, 1974.

Today's pensioners helped, during their working lives, at an earlier period, to lay the foundations for today's higher standards, increased prosperity and scientific advance. They expect therefore to be able to buy the essentials of life and indeed perhaps that "little more" that is the result of their hard work of long ago. This, after all, is what they paid their social security contributions or their taxes for - or it may have been forced savings - at a time when old age seemed far away.

In other words, cash benefits receivable after retirement are expected to be related not only to increases in cost of living but to increases in everybody's incomes.*

This claim is in fact more reasonable than it may perhaps seem. It does not mean that the retired demand income sufficient to buy, or be provided with, the latest gadgets, travel by the most luxurious forms of transport, or to have whatever the next generation may consider "indispensable".

Many of the simple amenities which the old, in their younger years expected to have in their eventual retirement, may no longer be available - or indeed wanted - by the time they reach retirement. It is therefore not enough to ascertain by how much the cost of, say, candles has risen. There are certain basic costs, say, for repairs of what have since become slum dwellings. It stands to reason that income, forty or more years later, is spent largely on quite different things. A man of 18 to-day retiring, let us assume, in the year 2020 at the age of 65, will still need a place to live in, will still need food to eat, will still need clothes, will still need to be looked after if he falls ill or has an accident. But one thing is certain, the pattern of life will be very different. Hence, social security has to make provision for meeting needs that may be basically the same but in many ways very different. Social security sees these problems in terms of two kinds of ways of keeping incomes in line with the same person's needs at a future time - in terms of what is called "dynamism" of two distinct kinds - which are discussed below. General gerontologists do not express the problem in this way. But their concern about keeping people integrated in society is, basically, concern with the same problem.

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* This subject is further discussed on page 100, below.

Specialists in the economics of social security have worked out various ways in which pensioners' incomes in a distant - or not so distant future - might be linked to a society's prosperity. A variety of assumptions have to be made to assure this. General gerontologists are concerned also with costs. Perhaps it is by the nature of their training that they look at costs more broadly.

This is not to minimise the techniques of "dynamising" benefits and other technical issues at which we shall look later. But it is to say the questions of relative poverty of the older members of the community raise issues of social security financing, as Dorothy Wedderburn and many of her colleagues have shown. It raises questions also which have to be looked at in terms broader than social security.

The two immediate elementary causes of poverty of so many retired people are well enough known. They are, very broadly speaking: the retired individual (or family unit) has stopped earning and, second, the level of what has replaced that source of income is too low. Gerontologists have often, in different forms, expressed the conclusion of the first (1961) American (White House) Conference on Ageing, that the old have a duty to themselves and to society to remain fit and well. Society, for its part, has the duty to help them in this. It is poverty which is the cause of so many retired failing to do this. This is the justification for closer study of the incidence of poverty and its causes.

Closely linked to it are questions of need. These too merit being looked at closely. Let us do so here in broad perspective and suggest an approach that may stimulate practical solutions in social security, and in general gerontology also.

* D2 Needs

Problems of unresolved needs of ageing and retired people and whether and how these needs can be met are closely linked to those of poverty, referred to above. Indeed, the former underlie the latter.* Problems of needs are therefore basic not only to social security and the broader field of general social policy but also, and hardly less obviously, to gerontology. More important perhaps than any other problem of need is the question of relative urgency of particular needs and how to determine this. It comprises the question of what constitutes real need.

In the first place, in many situations individual older people's needs are such that they have to be met out of funds other than those of the beneficiaries and that other resources have to be allocated for these purposes.

Secondly, various needs of the same individual older person compete therefore for allocation of resources of what is often called the "income maintenance system".** Needs of different categories of older people compete with each other for support and, not least, needs of older people with those of other large groups.

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* We refrain deliberately from beginning this discussion of needs by a semantic introduction. The word has many distinct meanings. So have many other terms which have to be used in social studies. Economists still use the word "capital" despite its many meanings. The word "community" is said to have 94 meanings in German sociological writings. "Need" is used by social administrators and by all concerned with social policy. The sense in which it is used will become clear, we hope, in the discussion which follows on these pages. Suffice it here to say that however unsatisfactory the concept those concerned with policy are in no doubt that it is useful to measure something which they call needs when these are recognised.

** The irony of this expression should not pass unnoticed. Income is usually "maintained" at a substantially lower level. The expression has the merit, however, that it is more comprehensive than much of what goes by the label of "social security".

Thirdly, it is hardly possible to avoid assuming that some needs are "greater" or "more urgent" than others. This introduces the problem of how to measure relative importance or urgency or size of need: hence, necessarily, by a quantitative gauge for a notion or concept that is, inherently, largely subjective. This raises the questions of whether that is possible and how it can be done.

Fourthly, to assess and, still more, to measure relative need requires value judgements. Such value judgements and rankings are in fact made either unconsciously or explicitly. In some cases, they are made by scientific and academic investigators, some of whom state them explicitly, some not. But often the scientific investigators prefer to leave the value judgements to those responsible for deciding policy while, themselves, supplying the latter with only indicators on which those who decide policy may base rational decisions if they wish.

Let us note here, in passing, that we may hope to discover, if we try, the kind of criteria people use to evaluate needs. But if we want to go a step further and ask why they use a particular set of criteria even psychology will help us little. We have to go back to first principles of moral philosophy and views on the perfectibility of man.*

Before proceeding with this discussion let us look at these four points a little more closely.

The first two of these points seem clear enough if we reflect that older people's needs for cash, for health, care, housing, etc. may involve considerable expenditure coming, either in the first place or ultimately, out of the collectivity's resources.

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* Cf. Two stimulating recent studies: Rokeach, M.: The Nature of Human Values. London and New York, Cassell and Collier - Macmillan, 1973; and Hutcheon, P.D.: "Value Theory: Toward a Conceptual Clarification", in "British Journal of Sociology", XXIII, 2 (June 1972) 172-187.

Inescapably linked to this is the fact that needs such as those of the older may have to compete for the allocation of resources with needs of the same kind or, more probably, needs of a different kind of the younger, say, needs of old widows in poverty with those of orphans, inadequate pensions with cost of infant welfare, needs of the retired still-relatively-well with those of the same age group needing surgery or permanent institutional treatment. Housing and domiciliary services for people disabled in diverse ways may compete with more ordinary housing for poorer people.

Expenditures for various types of communications and transport (telephones, etc.) essential for one group of citizens compete with those needed badly by another group. Absence of needed monetary resources to buy the service, lack of the service itself, lack of staff to operate it, causes hardship and insecurity. Hence the problem of allocation of public resources.

Social security is in many cases powerless to meet needs. Old age and other social security funds exist usually to meet only clearly specified needs out of precisely specified resources and may not go beyond meeting needs over and above those for which they were explicitly constituted.

If we take, however, a somewhat longer and broader view and keep prevention of poverty and hardship in mind as the goal, the very raison d'être of social security, we may at least contemplate the modification of rules and regulations in a somewhat longer run - modification of rules that render the attainment of this objective difficult. We may thus possibly conclude in specific instances that modifying rules and regulations in the future may be desirable and possible without bankrupting the funds. Even so-called "private" provision for retirement and old age operates under public laws. It is therefore greatly affected by public and legislative decisions on such matters as monetary policy, prices and incomes policies and taxation. In other words, old age provision and social security even in the narrowest sense are subject to legislation which is not immutable, even though pensions funds and social security funds and their rules may appear to be so, on a strictly legalistic view, in the short run.

"Social services" have developed in many cases along lines quite separate and distinct from those of social security. But even in such cases, competition for resources among those two kinds of individual and social provision was often not entirely absent. In some instances, the border line of what can be provided to the individual in the form of money to spend is easily recognisable as "social security" while other provision is neatly distinguishable as "social services" for which quite discrete sources of finance habitually provide. But, how clear cut the line of demarcation dividing social security and social services or how subtly the one shades into the other is not significant in the present context.* What matters here is that competing needs have to be met out of resources that are scarce, often severely so. Increasingly they are met inevitably out of public resources and by public spending.

Our third point above raises the unavoidable question as to which needs are to have precedence over what others. Related to this is the further question whether objective measures can be found and substituted for entirely arbitrary ones. It is fortunate in some ways that the problem does not usually arise in quite so crass a form. Prevention and relief of poverty and other social policies for individual and social needs do not start from scratch but rather questions of enlarging and expanding policies are raised within a web of already existing provisions and institutional arrangements. The question of relative exigency of needs is not rendered any less pressing thereby. This issue is indeed fundamental to the entire subject with which this book deals.

Both the third and the fourth point above refer to the problem of subjectivity. To try to define needs and assess relative urgency in meeting them may provoke anger and resentment. One may be accused of encouraging algebra in place of human sympathy. One may be suspected of wanting to try to set the clock back to notions of "less eligibility", "horrors of the Poor Law" of questioning the trend towards payments and services rendered as of right. Indeed, such resentment would not be altogether unjustified if the urge for assessing relative need came solely from the presumption that social security, much of the time, was not protecting the poor and needy so much as the not-too-badly-off. In fact, analysis and definition of needs is not only useful but necessary because resources for meeting them are scarce, may become scarcer, and the analysis of needs at least aims at providing a rational base for policy discussion.

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* The subject is further discussed on pp. 128-137 below. P. Townsend and others speak of social security as one of several "social services": the others being Health, Housing, Education and what they call "Social Welfare". They see social policy as the larger body of doctrine, the function of which is to co-ordinate all these "social services". It is argued sometimes by those who advocate a "systems approach" that no one agency can deal adequately with needs in isolation. Therefore, they say, services should be organised across organisational boundaries, aided by what American theorists of "Planning, Programming, Budgeting Systems" call "cross walks". But, it is equally arguable that coordination of different agencies and measures which that implies creates more problems than it solves.

A number of social scientists have in recent years given their attention to this subject because they had been struck by "how limited [were] the data, measurement tools and quantitative understanding".

The following discussion is based on analytical work on the subject which began only in very recent years. The attempt is made here to use that work and to take it a little further. While acknowledging our debt to the authors* whose work we have seen and to J. Bradshaw in particular, the responsibility for the way in which the ideas and analytical tools are presented here is the the present author's.

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* The following analysis is based in the main on concepts developed in the the various writings of J. Bradshaw, Bleddyn Davies, R. Walton, D.V. Donnison, P. Chombart de Lauwe, P. Townsend and J. Tunstall. Cf.: Bradshaw, J.: "The Concept of Social Need", in: McLachlan, G. (ed.): Problems and Progress in Medical Care. Oxford University Press, 1972; Davies, Bleddyn: Planning Resources for Personal Social Services (James Seth Memorial Lecture) Edinburgh, 1972; Tunstall, J.: Old and Alone. London, Routledge and Kegan Paul, 1966; Walton, R.: "Need, a Central Concept, in: "Social Service Quarterly" (London) 43, 1 (1969); Donnison, D.V.: "Taking Your Choice in Welfare", in: "New Society" (London) 17, 233 (14 Jan. 1971) 61, f.; Harris, Amelia: Social Welfare for the Elderly. London, Government Social Survey, 1968; Chombart de Lauwe, P.: Hypothèse sur la genèse et le rôle des aspirations dans les sociétés du xx^{e} siècle. Paris, Dourdan, 1967; Townsend, P. and Wedderburn, Dorothy: "The Aged in the Welfare State", in: Occasional Papers in Social Administration, No. 14, (London, Bell, 1965); Harris, R. and Seldon, A.: Choice in Welfare. London, Institute of Economic Affairs, 1970; Wedderburn, D.: "How Adequate Are Our Cash Benefits?", in: "New Society" (London) 10, 263 (12 Oct. 1967) 512-516.
The reader who may wish to pursue this subject would be well advised to look for subsequent writings by the same writers which may have appeared in the interval between the time when this study is written and when it reaches the reader. It is a subject in which there is growing interest. This will undoubtedly be reflected in further writing.

In looking at discussions of need by administrators and research workers one finds four distinct ways of assessing need. We may say that these represent four distinct senses of need: (a) Normative Need; (b) Felt Need; (c) Expressed Need, and (d) Comparative Need.

(a) By "Normative Need" is meant a "desirable" standard as laid down by professional administrators, professional people in various fields of social studies, geriatricians, the medical profession in general, etc. Given circumstances, say, in regard to health or incapacity, are thus compared with "norms" laid down by perhaps a national medical association, circumstances of housing measured in terms of desiderata specified by gerontologists and town and country planners, degrees of social isolation by social psychologists, etc. It is sometimes questioned whether the norms established by professional men can be absolute in any real sense. Such norms are rejected by some on the ground of being "paternalistic" in the sense of applying middle class norms in working class contexts. Different experts disagree sometimes in respect of a norm. Some such norms depend - albeit only to a limited extent - on value scales held by experts, say in regard to the individual's or his family's resources, which he can be expected to call upon to satisfy the need.

Notwithstanding objections of this kind, normative needs, in particular medical needs as defined by geriatricians, can have a high degree of objectivity. Where norm setters disagree it is often possible for experts to achieve a high degree of consensus. Normative needs do, however, change considerably over time, as a result of the advancement of applied science and of changing values of a particular society.*

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* The concepts of "long run" and "short run", introduced by Alfred Marshall into economics three generations ago, can be useful in clarifying problems of need. The distinction is usable probably principally in the case of "Normative Needs".

(b) "Felt Need" can be equated with want as perceived by the beneficiary, applicant or person who is in need without announcing the fact publicly. Felt need is thus, by definition, limited by the subject's perceptions. These depend often largely on resources that he knows or believes exist to meet needs he feels at present - much less or only dimly on future needs. "Felt Need" is therefore likely to be strongly affected by known "supply". Another feature of "Felt Need" is that it is often inhibited by the subject's reluctance - perhaps because of his temperament, or for other reasons - to acknowledge a particular or, indeed, any need.

Geriatricians have noted that, until recent times, medical services were based virtually entirely on the concept that disease produces symptoms of which the patient will complain and then seek treatment to relieve. The first stage in the sequence and therefore the outcome is dependent upon the patient himself. This is in effect the "lay referral" system as Friedson calls it.* Williamson and others have shown that this system is apt to fail badly.** Dependence upon "lay referral" will mean that a large proportion of pathology will go undetected. This applies particularly to ischaemic heart disease, diabetes and carcinoma of various forms.

Some commentators stress the converse situation, namely that "Felt Need" can be inflated by those who overstate their needs, believing that, at a later stage, no more than a compromise is likely to result in satisfying need. The circumstances in which "Felt Needs" are ascertained may cause variations in the results. Better scientific methods of inquiry may overcome difficulties of this kind.

(c) "Expressed Need" comes close to an economic concept in so far as "take-up" has some resemblance to "demand" as used in economics. It is thus "felt need" as reflected by something resembling market phenomena. Much need which is felt is thus not "expressed" in this sense. Housing needs of old people may be an example of this. In some cases, there exists knowledge of numbers of people eligible for specific benefits available but not claiming them. Detailed knowledge of the reasons is often fragmentary and too general. Hospital waiting lists may reflect expressed needs that are not met. Such waiting lists may, but do not necessarily, express need in an objective sense - at least this is a view sometimes advanced by surgeons.* Generally speaking, "Expressed Needs" of old and poor people are likely to be always very much smaller than "Felt Needs". This indicator may diverge considerably also from "Normative Need" because it reflects present rather than future pressure of "demand" or, perhaps more accurately, "take up". Low present "Expressed Need" does not indicate necessarily that a particular need is not great.

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* Friedson, E.: Patients' Views of Medical Practice. New York, Russell Page Foundation,1961.

** Williamson, J., Stokoe, I.H. et. al., "Old People at Home. Their Unreported Needs", in "Lancet" (London) 1964, I, 1117.

(d) "Comparative Need" is used sometimes to assess eligibility for precedence where the administrator is left to exercise a certain degree of selectivity and discretion. It is comparative in the sense of permitting decisions as to whether a person has the significant characteristics entitling him to a particular payment or service. The difficulty with this measure of need lies in the administrator's capacity to decide which are the significant characteristics.

The taxonomy outlined here can be represented in the form of a diagram.

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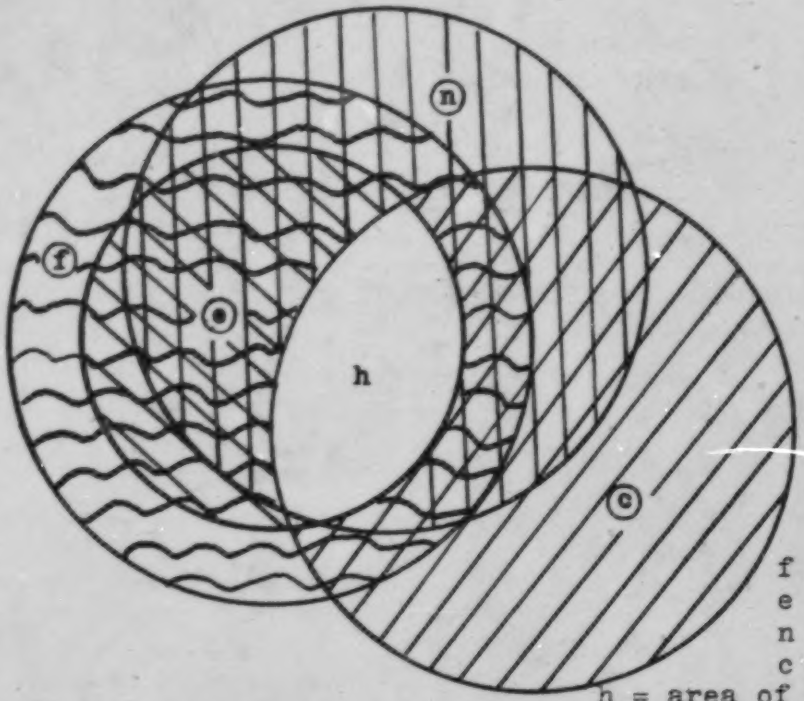
* Taken in that sense it reflects the surgeon's view of the General Practitioner who put the patient on the waiting list and thus created the "demand". Similarly, a short waiting list may tell us no more than that the "expert", here the General Practitioner, has been dissuading the man who believes he wants to express a need that it is not real or cannot be met.

Diagram 6

Need Assessed by Different Methods *



f = Felt Need
e = Expressed Need
n = Normative Need
c = Comparative Need
h = area of congruence of (f), (e),(n) and (c).

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* Based on sources indicated in footnote on p. 85 , above.

Note: The areas of (f),(n) and (c) are drawn as if they were all of the same size. This need not be assumed. But (e) is likely to be always smaller than (f).

It can be argued that there is some need when any of these four indicators show one. There is great need when all show it. In other words, there is a need when a statistically significant proportion of the population in question show evidence of it - or of a predetermined degree of such a need. We may thus conclude that the area "h", which lies within all of the four circles, represents the highest degree of need. As for the next most urgent needs the problems are better illustrated in the form of a table.

Table 5*

Measuring Social Needs

Situation Number/ Type of indication of need	1 Need Felt by the individual concerned	2 Normative Need Need postulated or recommended by experts	3 Comparative Need Need supplied or met	4 Expressed Need Need resembling demand in the economic sense as reflected in "Take-up" statistics	Comment
1	1	1	1	1	Indisputable Need.
2	1	1	0	1	Clear indication that the Need ought to be met.
3	1	1	1	0	There may be deterrents requiring investigation.
4	1	1	0	0	Absence of take-up possibly due to absence of supply.
5	1	0	1	1	Experts may need to re-examine their judgement.
6	1	0	1	0	Need possibly better met in a different way.
7	1	0	0	1	Experts and suppliers possibly out of touch with social reality.
8	1	0	0	0	Perhaps impossible to supply the need. Reasons perhaps worth investigating.
9	0	1	1	1	An improbable situation: Need not "felt" but"demanded". Statistical sampling possibly defective (cf. also situations 11, 13 and 15 below).
10	0	1	1	0	Public may lack information or experts may be mistaken.
11	0	1	0	1	Improbable situation (as 9 above and 13 and 15 below).
12	0	1	0	0	Perhaps too new, too technical or too obscure (e.g. medical needs). Perhaps public ought to be better informed.
13	0	0	1	1	Improbable situation (as 9 and 11 above and 15 below).
14	0	0	1	0	Need probably obsolete.
15	0	0	0	1	Highly improbable situation (as 9, 11 and 13 above).
16	0	0	0	0	No problem of Need.

(see footnotes overleaf)

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* Sources: as diagram 6 on p. 89 above.

Explanations: The symbol "1" in the table means there is a need in the sense stated on p. 89, the symbol "0" means there is not.

(1) Need Felt (corresponding to (b) on p. 87 above) represents the Need Felt by the individual concerned: Ascertained by asking (interviews, questionaires, etc.) the population concerned directly: Possibly by well-balanced sample surveys.

(2) Normative Need (corresponding to (a) on p. 86 above) or Need postulated or recommended by experts: May be presumed to be based on objective "norms": nutritional norms by biochemists, housing norms by gerontologists, town and country planners, etc. To some extent culturally determined. Assumptions of experts should be as explicit as possible.

(3) Comparative Need (corresponding to (d) on p. 88 above) refers to needs supplied to persons only with required characteristics where, in some situations administrators consider it real, in others not.

(4) Expressed Need (corresponding to (c) on pp. 87-88 above) reflects existing statistics of take up, vaguely corresponding to economic "demand". Where a corresponding "supply" exists, it can be measured by utilisation. In some circumstances waiting lists are a way of measuring it. It is the easiest of these four indicators: also the most likely to mislead.

By using these four indicators and setting out the sixteen theoretically possible permutations we see that situations 1 and 16 represent the two extremes, number 1 a situation of need that is equivalent to the highest priority. It corresponds to the area "h" in Diagram 6 on page 89. Almost equally urgent are situations 2, 3 and 4, although the latter two call for some further investigation, as suggested in the last column in the table. Situation 16 represents one where no action is called for. Another four situations, numbers 9, 11, 13 and 15 suggest that survey methods used may be defective and therefore worth reconsidering. In situations 5, 6, 7 and 8 experts may well want to look again at their judgements and the existing situation or other experts may need to be consulted. In situations 10 and 12 there may be even more urgent problems, as is suggested in the comment column of the table.

A framework of this kind may advance thinking in the direction of greatest needs and their origins. It is a move in the direction of collecting information to guide action. If we were to choose not to be guided by indicators, action is likely to be based on even less satisfactory guide posts.

It is not claimed that the system outlined here is the last word on the subject. Data-capturing facilities to-day are vastly greater than capacities to construct a satisfying analytical framework to use data obtainable or even already available. A typology of this kind should be capable of aiding research workers to gauge changes of needs related to demographic and technical change and also to standards and expectations of living. It leaves many questions of research methods to be resolved. It may take us a step further away from mere hunches and guesses. It may lead eventually to building a model, a set of inter-related propositions, a procedure employed increasingly in social studies. For the present it is a theory - rather than a model - if by theory we mean a coherent body of generalisations and abstractions which stops short of being a full model.

* E. Social Security and Social Services

> "Retirement is all right if you've plenty of money. It looks like a chance to do the things you've always wanted to. But when it comes to doing them you find you can't afford it ...." (An anonymous retired man)

> "I expected to have to cope with loneliness and unexpected leisure, but in fact what I had to cope with was sudden poverty ... Who wants early retirement, walking round the suburbs every day until death looking for food bargains ...."
> (A recently retired single woman)

> "It seems that when they retire, after being treated as useful citizens earning their own living, they're treated as useless people." (A director of an "Active Age" project)

> "'The child is talking nonsense', said the Red Queen .... 'Let's try Political Economy. Supposing you were pledged to introduce a scheme for Old-Age Pensions, what would be your next step?' Alice considered. 'I should think ...' 'Of course you'd think', said the White Queen, 'ever so much. I've thought about it myself; I still think about it a little, just for practice - principally on Tuesdays.' 'I should think', continued Alice without noticing the interruption, 'that the first thing would be to find the money.' 'Dear, no', said the Red Queen pityingly, 'that wouldn't be Political Economy. The first thing would be to find an excuse for dropping the question.'"
> (**Hector Hugh Munro, The** "Westminster Alice.")

The actual social provision that social security makes for retirement is less complex than it appears. If the Acts, orders and decrees governing it appear to be an intricate tangle of regulations this is because they reflect diverse and conflicting pressures at different times in the past, resulting in ad hoc and fragmentary growth in different national traditions of rules embodying often essentially simple, sometimes harmonising, sometimes conflicting, principles. Moreover, the way in which these rules are interpreted and applied is at least as important as the rules and regulations themselves. But it is obviously more difficult to gauge, even if it were for the purpose of a static picture. If a balanced picture over time is required information on what really happens is clearly even more important than catalogues of laws and regulations.

To obtain a view of social provision for the retired and of the principal problems faced by those who make policies and administer them, it is particularly useful to bring together the two large subject areas of social security and gerontology. Social provision for the needs of ageing human beings is by no means the only concern of gerontology. But it is a major one in so far as interest in all aspects of healthy human ageing was the primary motive in creating the subject area of gerontology which brings together all those working on problems of ageing. That this concern of the founders of gerontology, to see the problem of ageing as a whole, has not been without success was shown in the first chapter above.* General gerontology has therefore much to contribute to social policy and social security of the retired. It makes it possible for the social, biological and other aspects of ageing to be seen as an undivided whole and for some results of research to be translated into practical policies.

Similarly, in the subject area of social security, social provision for the retired and old is by no means the sole concern. It is only one among a number of contingencies for which social provision must function effectively. The practical measures reflect therefore many necessary considerations lying well without the field of provision for the retired and old only. This should place the subject into a wider context and thereby perhaps lead to that "dogged realism" in the corridors of power which some of the practitioners ask of the policy makers.

The term "social provision" as used above is broad enough to include, on the one hand, cash payments, income maintenance schemes such as pensions in old age, widowhood, retirement, disability, invalidity, etc., and insurance to cover payments in case of retired people falling ill or having accidents, i.e. the central area of "social security" as it is understood in most systems. On the other hand, it includes also a wide range of services provided directly to the recipient, notably in regard to housing and health. These two types of social provision are in most systems administered by quite distinct authorities, financed from separate sources. They use often quite different sets of criteria.

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* pp. 1-15 above.

In the following attempt at concentrating attention upon predominant issues and trends in social provision, it seems best to discuss these two types of social provision separately. Thus, money payments through the social security system are considered first and at rather greater length. Not the least of the reasons for adopting this order is that the recipients themselves attach so much importance to the independence which cash payments preserve. The feeling of choice which disposal of cash confers gives the retired a sense of being in this respect at least on an equal footing with the younger.

Obviously this type of provision - of which the pension is the most typical - is closely related to diverse provisions for health, housing, etc., which are briefly discussed afterwards. Where certain types of medical and health services are not free of charge at time of need but have to be paid for by the patient or recipient, or where housing for retired people has to be obtained at market rates, etc., the need for greater cash benefits is thereby increased correspondingly. Measures designed to prevent poverty in retirement ever arising - rather than to relieve it after it has become rooted - are of a rather different order and are germane to both subjects.

The reader will of course not expect detailed descriptions of the latest "state of play" of the various schemes for income replacement and services for people in retirement and old age in the various contries, and the frequent changes and amendments. We will attempt rather to refer to principles. The issues selected for consideration in the following pages represent problems facing social security and social policy. Although not the only issues of course they seem to us major ones. They are primarily of interest because they affect the ageing person, though all of them are also questions of administration. Many of them are best put in the form of questions rather than detailed description. This may be the best way of showing the interest of these issues in the gerontological context. The aim throughout is not to give more facts than are strictly necessary to delineate the problems. The questions are ineluctably interrelated. That lies in the nature of the subject matter. The order in which the issues are placed below is not to be taken as significant. To attempt to do otherwise would introduce an element of controversy which serves no useful purpose. A list of major issues has to include references, here and there, to policies under consideration as well as to those in operation. Included are issues thought by some to be too "technical" to be even discussed beyond the narrow circles of "experts". In other but rarer cases, retirement issues threatened becoming epicentres of political earthquakes. But fortunately, given certain agreed basic premises about the purpose of social policy, consensus seems possible.

Administering particular policies in situations of monetary stability and instability, full employment and unemployment, widely different systems of taxation, interlocking and more or less unrelated general and occupational schemes has led to an accumulation of experience that should make it possible to frame questions to-day in more specific form than in the past.

It is interesting to note that a decade and a half ago, a leading "social security gerontologist" - though he would hardly describe himself by such a label - put to the broader forum of gerontologists a number of issues that were preoccupying him and his colleagues at that time. His principal questions concerned levels of living in old age, relations of these levels to earlier income or whether pensions should be set at a flat rate and whether pension benefit should be reduced for pensioners earning income from work. Interestingly, questions somewhat outside the strict social security framework, such as provision of special housing for older people, collective social arrangements, tax relief, questions concerning cost of living indices for old people featured also among those which the chairman of the International Social Security Association's Working Group on Old Age Insurance brought to the attention of other gerontologists in 1960.* Since then, the International Social Security Association has had to concern itself with issues bearing on retirement, on many occasions.**

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* Hydén, S.: "Basic Issues Regarding Levels of Living in Old Age" (Paper presented on behalf of the International Social Security Association), in Tibbitts, C. and Donahue, Wilma (eds.) Aging Around the World. Vol. I. Social and Psychological Aspects of Aging (Proceedings of the Fifth Congress of the International Gerontological Association, San Francisco, 1960.) Columbia University Press, 1962, pp. 169-172. Reprinted in "Bulletin of the International Social Security Association" (Geneva) XIII, 9 (Sept. 1960)424- 430.

** Ref. passim.

Problems of terminology present difficulties on all occasions when a subject is looked at internationally. They are mainly of two kinds: terms which have one meaning in one system but a different one in another. The difficulties may be only slight as, for example, in the case of "tiers" in pension assurance: "special" pensions schemes, say for miners, merchant sailors, farmers, have features similar to occupational "second tier" schemes in some countries say in regard to finance (by employers' and employees' contributions, where appropriate and then sometimes, as a result of collective bargaining). They are thus, in those countries, additional to "first tier" general or basic schemes whereas, in other countries, they are alternatives to the latter type of protection and therefore "first tier" schemes. Such difficulties can be overcome by detailed explanation. But this is cumbersome. Secondly, there are terms which in one system or one language have associations with notions that evoke strong reactions. Examples of this are "means test", "means tested", "politics" or "political", terms which it is wise to use only with detailed explanations of their precise meaning in the context.

A third difficulty of terminology arises not so much out of the trans-national as out of the trans-disciplinary character of the discussion. There are instances of the same term having a rather different meaning in medicine and in sociology, both subjects relevant to the present discussion. As the terms are often not clear to readers not specialised in either discipline, the simple solution is to avoid them whenever possible and use instead more generally intelligible expressions even at the risk of displeasing specialists by ambiguity. Such a solution is somewhat more difficult in the case of terms referring to the financing of schemes and actuarial matters, where many of the necessarily very precise terms used are unfamiliar to laymen. The only alternatives then are either to explain the precise meaning at length or to leave it unexplained, leaving the interested reader to ascertain it from appropriate works of reference. Too much should not be made of such snags of terminology. But it is well to remember their existence and the confusion they are capable of causing in trans-national and trans-disciplinary discussion.

* E1 Social Security Cash Benefits: Major Issues and Trends

For the sake of brevity "pensions" will be used below as the generic term covering the cash payments made to retired and old people through the social security system. For our present purposes this will have to do to distinguish this financial type of provision from services, payments in kind, social welfare, While it is of course a simplification it appears justifiable in most contexts in this **book** in that it helps to make certain basic points clear. Old-age and retirement pensions in the technical sense are in fact the most important income transfers of this type.

The ten issues that seem to stand out and the trends perceptible are the following. Each is discussed at somewhat greater length after all ten are enumerated.

1. The dilemma of the Persistence of Poverty among the Old and Retired at a time when Costs of Pensions are Rising steeply.

This raises at least three major groups of questions: by what kind of payments is poverty of certain types of pensioners to be relieved? Secondly, by whom and up to what ceiling can the increased cost reasonably be met? Thirdly, relationship between contributions and benefits under different types of provision and classes of beneficiaries. For whom does this raise special problems?

Trends: two kinds of trends seem perceptible, although far from universally: (a) spreading the cost by distributing it. Hence a trend towards occupational pensions, coordinated with general or basic ("first tier") pensions, and (b) towards greater selectivity, i.e. towards topping up inadequate pensions by complementary means-tested* payments.

2. Reconsideration of Pension Levels.

The questions this raises are rather more "gerontological" than those raised under (1) above. What can be considered as adequate income of pensioners?

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* Explained in the subsequent discussion.

What determines adequacy? How is adequate income to be achieved? Differences between men and women pensioners or, among women, between widows, spinsters and married women, housewives and others recognised as having been "employed" earlier in life. Where there is a means-tested* level governing entitlement, how can the needs of those barely above that level be met?

Trends observable in recent years seem to be in the direction of favouring those whose previous incomes were not too low. Thus, some schemes aim, by means of "first tier" (general) schemes and "second tier" (occupational) schemes at graduated benefits replacing, in a few countries and for more fortunate people, up to 60 per cent of final earnings.** But there seems to be no trend towards a really satisfactory solution of the problem of how to meet the needs of those who cannot look back on anything to be described in any sense as a "career". Proposals of fiscal expedients are not far advanced. **They are referred to in chapter 6.**

3. Redistribution

Social security payments constitute transfer payments not just from the past to the present and the present to the future as in much of ordinary insurance.

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* Explained in the subsequent discussion.

** Pension insurance in the German Federal Republic, for example, aims at providing, after 40 years' contribution, a pension equal to 60 per cent of average life time earnings (up to a ceiling). The formula used is based on four elements:

(1) A general basis of assessment, as a measure of average wages and salaries in the economy (but with a certain time lag).

(2) A personal basis of assessment showing the relation of the particular pensioner's income to (1) above.

(3) Length of contributory period and,

(4) A coefficient to ensure that pension level is a certain percentage of previous earnings (after a standard assurance period of 40 years).

This means of course that disparities in earnings are carried over into pension benefits.

How far do schemes in their present form effect equitable distribution (a) between richer and poorer people (b) between tax payers and those below tax thresholds and (c) between generations? What are the limits? How are limits determined up to which such transfers are possible, desirable and acceptable?

On this issue it is hard to see any wide consensus or clearly marked trend at present.

4. Keeping up the Real Value of Pensions in Payment

This covers the two kinds of "dynamisation": (i) to offset changes in the purchasing power of money and the cost of living and, (ii) to keep pensions already paid in line with rises in incomes derived from production, i.e. reflecting changes in general incomes as well as prices.*

This raises two other issues: (a) the time lag and procedures of adjustment and (b) questions about type of index used - and whether appropriate for this age group.

Trends: Need to protect cash payments to older people against depreciation of purchasing power seems to be now widely acknowledged and considered feasible in "normal" inflation. In "hyper-inflation" problems are of a different order. Ways of securing the second type of dynamisation, while maintaining solvency of existing funds, raise difficult questions. Different solutions have been tried, but they continue to be debated.

5. Means Testing

In regard to social security provision in cash the problem of "means testing" (i.e. proof that the claimant has no excessive savings and has no income or property above a rigorously prescribed limit) is less great than for certain services. The reason for this may be that the latter have a closer link with outdoor relief and public assistance of the past - when the parish or commune and, later more central authorities, wanted to be certain that family responsibilities were not simply passed on to them and idleness encouraged. The cash element in social security, in many countries, is linked historically more with insurance, where discretion is limited rather more to ascertaining whether the contingency assured exists and thus the right to benefit is established or not: a relatively simple process. More important perhaps, is that once such a right is established, the amount payable is thereby also determined.

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* Referred to on p. 79 above.

Basic pensions as such are means tested hardly anywhere. But supplementary pensions are, under many systems. It might be noted in this context that direct taxation is also a form of establishing of what means a person disposes.

Objections to means-testing are of two kinds: (a) to means-testing as a principle affronting human dignity and involving anomalies and unnecessary expense and, (b) to particular ways of administering means tests, i.e. to examining whether a potential beneficiary really cannot find the means of satisfying the particular need himself. This second group of objectors includes those who disapprove of means tests on the ground that they discourage thrift.

Questions include whether means-testing with adequate safeguards is becoming more widely acceptable. Are stigma-free means tests possible? If means-tested payments are rejected in principle is the only alternative that of linking benefits to contributions?

Trend: There would appear to be a tendency to render means-testing more acceptable by making it no more inquisitorial than income tax declarations and by granting, as of right, whatever complements may be payable, provided only that the claimant's qualifications accord with a scheme's simple provisions.

6. Preservation of Rights. Transferability of Rights.

This issue concerns mainly occupational schemes, but also movements of people from one country to another during their working life (which affect rights to cash payments at retirement age in first as well as second tier schemes).

Within a country, absence of transferability of acquired pension rights can render movement of people during their active years difficult, as between firms, industries and types of work.

Since many people think little of economic security in old age, when they are still young, inability to accumulate rights to protection later will account for inadequate retirement provision then. Perfect preservation of pension rights acquired needs therefore to be safeguarded. But guaranteeing such "portability" of rights raises questions of central supervision of occupational schemes within a country, i.e. of fragments of rights acquired during the whole of a person's working life.

The problem is particularly difficult for those who have no rights or only very very few rights to preserve: casual or unskilled people trying themselves out in different jobs, housewives and others not regularly "employed" for various reasons. Where rights to cash payments in later life are acquired by "employment" in the economic sense this raises questions especially for women. A special problem are people - again mostly women - looking after elderly ailing and helpless relatives in their own homes, and thus not "employed". The public purse is thereby saved the considerable cost of maintaining these old people in institutions. Changes from and to "employment" and "self-employment" fall also under this heading.

Trend: It is widely recognised that entire and smooth transferability of rights acquired in working life is highly desirable. Obstacles are, in many cases overcome. Internationally, the European Economic Community have gone some way to deal successfully with acquired rights of migrant nationals within the countries of the Community by smoothing financial settlements between countries and schemes.

7. Age or Retirement as Determinant of Pensions?

This issue raises questions more gerontological in character than many of the others listed. Should the earliest age at which benefits can first be drawn be lowered - and for men and women alike? Should payment depend upon ceasing to work? Should incentives be offered to induce people to defer application for payments? Personal circumstances, temperaments, jobs, needs and priorities differ. How far can provisions in schemes allow for such individual differences? In schemes where cessation of work is considered an issue, can it be presented in less absolute form, allowing for compromises such as part-time work after retirement? Where work after a specified pension age is seen as a desirable objective, whose business is it to help older people to find such work and what can be done to help them find such work as suits them?

Trend: Perhaps not strong, but towards more flexibility. Obstacles seem to be greater than anticipated. None the less, in several systems a distinct trend is noticeable in the direction of more flexibility and offering wider individual choice.

8. Conflicts between Social and Economic Goals

Such conflicts are more likely to be noticed by observers not themselves engaged in administering a social security system than by those so employed. Effects of social security cash payments to retired people vary between countries. They vary at different stages of the trade cycle and according to the importance of such payments in national accounts. Deductions for pensions from wages of people still working are more likely to be questioned by economists than the amounts of pensions paid to pensioners. Even the former may be only a relatively small element in labour costs. But it is argued that higher labour costs can induce claims for higher wages and thus stimulate inflation. There may thus be a temptation to economic planners to use such payments as tools in inflationary or deflationary policies. The case for social planning rests partly on the inadequacy of looking at such matters in terms of economic planning.

There is no trend in any country to cut cash payments to the retired in order to curb the economic demand of this segment of the population, for the simple reason that cutting total expenditure of that age group would not improve a country's economic position. Considerations of this kind may however act as a brake to improving incomes of that group and delay upward adjustments of cash payments, i.e. the "dynamisation" referred to under (4) above. Moreover, economic considerations of this type may have effects on tax changes or delay tax changes needed. If part of the cost of pensions is shifted from taxpayers to employers this may result in an increased cost of living of the retired through effects on prices.

9. Simplification and Rationalisation of Various National Schemes : Compatibility with the Goal of Meeting the Diverse Needs of the Retired.

Pressure for harmonising schemes grows, mainly to lighten the administrative apparatus. Recipients in schemes that take account of special needs (e.g. due to short careers, dangerous occupations, etc.) are not anxious to have their privileged position whittled away. Complex historical origins of special schemes for miners, sailors, civil servants and other occupational groups, render their submergence in general schemes difficult, but not impossible. To what extent do modern means of electronic information processing make it possible to incorporate different qualifying conditions and different payments in general schemes? Harmonisation is held up as a desirable goal. Harmonisation may mean (a) conforming to a single pattern of principles or (b) facilitating transfers on an agreed basis. In sense (a) it amounts to standardisation and, in effect, often to a levelling downwards.

Trends: Upward harmonisation in the sense of bringing different social security systems for retirement, old age etc., into line is very far off. None the less, knowledge of positive features in foreign systems has on occasions led to pressure for improvements. Within countries, as systems come to cover more categories of retired people in need, efforts are made to make separate schemes easier to administer while, none the less, maintaining their separate identity (as in France).

10. Financing.

The relative merits of the two main systems of financing, viz. funding and pay-as-you-go are widely discussed. The effect of systems of financing on levels of benefit and distribution of costs is greater than is widely appreciated by those who are not "experts" in this matter - and therefore consider the subject too technical. Policy making and its limitations are so largely determined by who bears what proportion of the cost. Distribution of costs among future beneficiaries, earmarked funds from taxation, subsidies (limited in advance or entirely unpredictable) out of general taxation, employers' contributions, etc. vary from country to country, from scheme to scheme. Sometimes financing is linked to other sectors of social security. This may further impede public scrutiny and discussion.

Trend. The Pay-as-you-go or assessment type of financing appears to be gaining ground as against the funding method. But there are not many schemes that have not retained some elements of funding.

Having outlined these ten issues above in somewhat summary fashion let us try to make them a little more explicit, here and there, by the aid of a few illustrations. The latter are apt to date rather quickly. The reader's indulgence is therefore asked; it is hoped that he will substitute the past tense for the present where illustrations are already out of date by the time these lines are read. But, by and large, it takes a generation or so for a scheme to come to full maturity. It has been said that no scheme should be judged until it has run for a full thirty years. The illustrations given retain their historical interest even if the situation has subsequently been modified.

1. On the first issue (the rising cost of pensions at a time when the proportion of pensioners to contributors is increasing): the much higher cost of pensions is noticeable in many industrial countries. This is not of itself a new problem. It was expressed rather bluntly by a government actuary almost forty years ago:

> "... With the certainty, in view of a diminishing working population combined with an increasing aged and pensionable population, the outlook for the next generation is very bleak and the probability is that the burden of the population of working age will be too heavy to be borne..."

observed Sir Alfred Watson, actuary of the British government in 1935.* Politicians and administrators had struggled with this danger on many earlier occasions. Faced with a proposal from his civil servants to lower women's retirement age without any provision to encourage them to continue at work, Winston Churchill, then (1925) Chancellor of the Exchequer, had written in the margin of the memorandum the one word "Awful", Sir John Walley tells us.**

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* Quoted in, Walley, Sir John: Social Security: Another British Failure? London, Knight, 1972. p. 69.

** ibid.

The problem has been put with increasing insistence in recent times. A specialist American commentator has noted that,

> "... All countries feel that the level of their means-tested benefits is too low. At the same time, however, they feel that any sizeable or rapid improvement would simply cost too much ..."*

A study published in the "Harvard Business Review" in 1970 argued that "expenditure on pensions and related employee benefits" in the United States had increased from 10 to 20 per cent during the 1960's. The author considered that this rate of increase was likely to continue and that it was probable the proportion would reach 50 per cent by the mid-1980's. The problem is aggravated undoubtedly, in countries such as the United States, by an increasing number ofpeople retiring early from declining industries and occupations such as the small retail trade, farming, mining and others.

People still working are generally worried about the rise in income tax and of various other deductions from gross wages. That the younger and working people are worried about growing deductions from their earnings there can be little doubt. Whether they are worried most about increasing deductions attributable to this particular cause is less certain.

It is more frequently left to demographers to point out that the working population is likely to be crushed by over-burdening charges if past trends of age distribution and other indicators of sources of revenue are projected into the future. Some economists, taking a more differentiated view, profess alarm only in so far as larger total expenditure on present *and past* pensions is to be financed out of larger present *and future* general taxes. Their arguments are often directed either against increases in social charges as a whole or against increased single-tier systems of universal pensions, financed not by the pensioners' own past contributions but by the wealthier present tax payers.

It is at first sight surprising that poverty among retired people (measured by whatever yardstick) should have persisted to the degree that it has in the highly structured economies of countries having enjoyed unprecedented levels of prosperity and low unemployment in the decades since the second world war.

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* Horlick, M.: *Supplemental Security Income for the Aged. A Comparison of Five Countries*. Washington, D.C., U.S. Department of Health, Education and Welfare, Social Security Administration, Office of Research and Statistics (Staff Paper No. 15), 1973.

Two causes may help to explain this: low and intermittent earnings spread over a man's working life and high incidence of disability. Where levels of cash payment on retirement depend on the contributory record of the recipient, general economic conditions - especially periods of enforced unemployment - may account for the low level of these benefits. Disability and sickness heighten needs and poverty. Moreover, there are the cases of disability, not certified as such for one reason or another.

Some of the most extreme poverty has been found among the very oldest people, especially among widows and other women having no claims in their own right. Many of the very old people could not meet, under some systems, the conditions of eligibility for any pension, either because they were already retired when a system was instituted or, because not enough time was left for them to pay the minimum number of contributions required to qualify. For such qualifying requirements (by contribution records) existed even in some universal systems of pensions. Transitional arrangements in some countries eased the position somewhat. In Great Britain, a special benefit was instituted in 1970 for the over 100,000 octogenarians who had not been qualified for a pension under the National Insurance Act of 1948. *

The increased cost is of course differently distributed according to the relative importance of general, i.e. so-called "first tier" schemes covering, as a rule, the whole population - together with schemes complementing them, on the one hand and the occupational, or so-called "second- and third-tier" schemes on the other. For each type of scheme, moreover, there are a wide variety of possibilities of financing. Without entering at this point into principles of financing it should be noted here however that general schemes** and, even more so, schemes complementing or supplementing them represent often combinations of the "insurance" and the "poverty" approaches to social security - with supplementary schemes having more the character of the latter or "safety net" approach.

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* Similar provision was made in Denmark, Finland and a number of other countries.

** Such general schemes may cover the entire elderly population as under the Swedish, Dutch, British and New Zealand Schemes or the larger part of it as in the German (Federal Republic), French, Belgian or Italian schemes. Alternative "special" schemes for particular occupational groups, as mentioned above, must be considered "general" schemes.

Any extra burden arising from attempts to meet unacceptable poverty in retirement or old age may fall to very different degrees on present tax payers or on present contributors to future pensions or on consumers. These are largely, but certainly not entirely, the same people. Incidence of the extra payments may fall very differently on categories of the population well equipped to bear them or not.

Attempts at approaching adequacy of coverage in income replacement are usually seen in terms of the total sum provided by the two main "tiers" or types of benefit taken together. Since the financing of second tier schemes is, as a rule, different from that of the first tier schemes, the relative importance of these two tiers in the total is important in so far as it determines by whom the impact of extra cost is chiefly borne and, consequently, for gauging limits of what increases are bearable and acceptable. But groups called upon to shoulder a particular proportion can of course pass on the burden to other groups. Where this happens the ultimate burden may fall on those least able to bear it. Where much of the cost is collected through taxation the fiscal system will require scrutiny as to whether the burden is distributed fairly.

In looking at the persistence of poverty among the retired it is noteworthy that many see the "management of one's own income as an essential element of a citizen's freedom" as the Beveridge report put it, when arguing against the state going too far in protection. This is also an essential principle in the Swiss "three pillar" system. On this reasoning it is assumed that people of working age are not only willing but also able to save for provision in their old age and that, aided by their employers and/or the state, they can be encouraged or compelled to do so. In various countries, government committees have investigated the practicability and limits of individuals' economic and financial capacities of providing for an important part of their own financial needs in retirement and old age.

It is often said that financial provision for old age and retirement is not ordinary insurance against a risk but is rather more like a gift or something to be saved for. The same flat rate contribution could hardly at the same time be fair to young entrants into a scheme and yet provide full pensions for people who had not paid for them over the whole of their working life - unless of course such pensions were subsidised from some source.

Persistence of poverty among the retired could be due to formulae for normal benefit being based on mistaken assumptions about an "average" or "normal" "career", the number of years a person had "worked". This puts large categories of retired people and survivors under a particular disadvantage. This involves value judgements underlying basic pension schemes which may need re-thinking in the light of social, employment and income data.

Single tier pension schemes, based on pay-as-you-go methods of financing may commit future generations to unmanageably high payments in terms of future national product. Systems relying largely on occupational "second tier" sources may leave large segments of the population without adequate coverage in old age. The main problem in this context to be studied is the poverty of those not adequately provided for by first tier plus second tier schemes and left to be taken care of by various complementary and supplementary improvisations, hardened over the years into schemes.

It may well be that the solution to this problem of a "proletariat of the old", this "third world within a country", as Pierette Sartin calls it, lies beyond the field of retirement and old age assurance and gerontology and has its roots rather in the unsatisfactory early adult life of so many people.

2. The second issue listed above raises very broad questions of adequacy of replacement incomes. It is in fact very closely linked to the (first) issue just discussed.

Gerontologists are unanimous in urging that the old and the invalids must be assured of an adequate level of living. It is the very raison d'être of gerontology. Gerontologists have found also increasingly that they cannot disinterest themselves from how this can best be achieved. Some gerontologists have stressed that adequacy means at least a level "economically sufficient for both age and invalidity" (Tartler). Some have gone on to state that the "... needs of consumption among the older differ in no way from those still at working age" (Thieding). Economists have put this into figures. Beveridge, anticipating no doubt possible objections from the Treasury, took pains to show in carefully calculated percentages (based on 1939 prices) subsistence minima of people over 65, under the headings: food, clothing, housing, heating, lighting and miscellaneous expenditure. He concluded that food requirements were about 87 per cent of those at pre-pension age, clothing 67 per cent, heating, lighting and miscellaneous 125 per cent. The total budget calculated in this way came to only 5 per cent less than at pre-pension age.

Essentially the question of adequacy and a life worth living for the ageing population is of course not only economic but social and political (in the sense of concerning the polity as a whole). That is perhaps why some of the towering figures in the progress of social security were statesmen: Bismarck, Lloyd George, Churchill, F.D. Roosevelt, not specialists in the minutiae of social provision or other aspects of gerontology.

Looking at the matter historically, it is interesting to note that questions of first tier pensions have preoccupied people longer than we sometimes realise.

What was probably the first attempt of a state to offer and guarantee its citizens what we would now call national superannuation, or a pension for life, takes us back almost twenty-two centuries. It is recorded on the Stone of Miletum in the year 205 B.C. Every citizen of the prosperous trading city of Miletum in Asia Minor could, by a once-and-for-all payment of 3600 Drachmas, assure himself an annual pension for life amounting to 10 per cent of the amount paid in. History records nothing about any actuarial base of that scheme. All we know is that the system failed. This may well have been the first experiment with guaranteed replacement incomes at a level considered adequate by the would-be-beneficiaries, to be attained by confiding capital to a state.

A history of income replacement in old age would have to include much of the social thinking of the late seventeenth and eighteenth centuries. Daniel Defoe's Essay on Projects, Lavoisier's, La Bretonne's, Condorcet's, Colbert's ideas would be worth analysing and evaluating in a history of retirement incomes. But it was Otto von Bismarck's compulsory contributory scheme of 22 June 1889, for old age and invalidity assurance of manual workers, which stimulated, perhaps more than any other modern scheme, financial provision by the state for old age by methods other than the poor law system. The influence of that scheme was felt even in countries which adopted non-contributory and sometimes income-related replacement, i.e. quite different principles, as did the Danish old age pension scheme of 1891, the New Zealand old age pension (financed out of general revenue and intended as "partial compensation for victims of the economic system")* of 1898, or the New South Wales scheme of 1900.** The influence of the mutual benefit societies and of trade unions on modern schemes too should not be under-rated.

Looking at the problem of adequacy by hindsight, it is worth stressing that the Prussian scheme and all of the other early schemes mentioned were intended to supplement income, not as the sole source of income for the retired. But the important fact is that, for a considerable proportion of the retired, the problem became just that.

If adequate retirement incomes are to be achieved, benefits at or near levels of incomes shortly before retirement are, clearly, not a bad solution for those who have something of a career culminating in relatively high salaries or wages at the end. But pensions related to earnings at the end of working life overvalue unfairly those who have been more fortunate than the general run of people in their careers, at the expense of the great majority. For those who never, for any length of time during their working lives, earn what, in some countries is called a "minimum wage" an earnings-related retirement income,is, by definition, inadequate. Moreover, it may leave the problem of dependents and survivors. The problems of casual and migratory workers, people engaged - though not necessarily "employed"- in agriculture and many others are not easy to meet by formulae relating post-retirement to pre-retirement income.

In looking at a number of retirement schemes in different countries one is struck by the fact that those whose retirement benefits are manifestly inadequate by any standards, are not necessarily people with low incomes in their working life or people who chose to retire early, or even disabled people, but rather victims of technical and economic change or of reorganisation of social security schemes. This includes many "self-employed" and others in declining occupations, people unable to move, that is to say, victims of economic forces entirely outside the individual's control, even to the extent of taking evasive action in time. How high a proportion of the total number this may be further inquiries and research may perhaps elucidate.

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* Sutch, W.B.: The Responsible Society in New Zealand. Christchurch, Whitcombe and Tombs, 1971 (p. 27)

** New South Wales, e.g. gave close consideration to Bismarck's scheme based on the contributory approach, but rejected it on the ground that it was "likely to prove objectionable to people of British origin".

Universal flat-rate benefit systems make it easier to cover non-"workers". But the cost of financing them is high if an acceptable level is to be safeguarded to those with low pre-retirement earnings, with no other sources for post-retirement incomes to fall back on. But to provide this level of replacement also to all those with other sources of post-retirement income would make such a first-tier scheme very costly.

Hence, many systems have evolved in the direction of aiming at a level far from approaching adequacy, by means of a basic or first tier uniform scheme for an entire population: but at a low level, to keep down the cost - and supplemented* for all those who, even with second-tier, occupational, earnings-related benefit schemes,** were still far below acceptable standards.

In the recent past this has been done, e.g. in Sweden, Finland, Norway, Canada and Australia. Such systems - most of the details of which need not preoccupy us here - are in fact hybrids of the social insurance and welfare approaches: but with this important qualification: the compensatory element is not aid in the sense of charity, but granted in the sense of a binding legal claim under the pensions insurance system, provided only that specific, but simple, qualifying conditions are met. These systems have grown pragmatically (and therefore terminology used in different national systems can be confusing). Many observers express the hope that improvised measures of complementary and supplementary schemes will eventually be incorporated in basic schemes and thus improve the latter. This was done in Norway in 1966 - a very rare instance, so far.

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* For a detailed study of the various types of supplementary or complementary provision, cf.: Perrin, G.: "Les régimes complémentaires et la securité sociale", in "Revue française des affaires sociales" (Paris) 26, 2 (April-June 1972) 35-53; and in Fifth International Conference of Social Security Actuaries and Statisticians (Berne, 1971): Proceedings, Geneva 1972; 439-478.

** Many of these schemes are entirely financed by employers.

The Belgian scheme of 1967 is interesting in that it is based on a clearly expressed concept of a "guaranteed minimum". The link between work and right to benefit is abandoned and the new system is based on central financing. The "guaranteed minimum" is given as a supplement. Although not by itself sufficient to secure adequacy of income it was intended primarily for people who had not "worked" or "worked" only for a relatively short time.

The Finnish system is worth mentioning for another reason. It is in two parts, a basic pension for everyone aged 65 and over, regardless of whether he or she continues to earn income from work or not, a second component varying in amount according to number of dependents, place of residence and other income, and a third component including allowances for disablement, very old age and a number of other factors of this kind.

A problem of adequacy of retirement benefits, now receiving the searching attention it deserves, is the, sometimes irrational, discrimination between men and women. To anyone other than a historian of social security it must seem strange that women - who, according to actuarial tables, live longer - should receive retirement benefits at an earlier age, under many schemes.* The historical explanation is simple. Many schemes were deliberately so designed. The argument was that since married women were often somewhat younger than their husbands, things should be so arranged that both might begin to draw their pensions at the same time. The illogicality of this arrangement - where both, a man and his (younger) wife work, and both pensions are inadequate - seems to have been widely disregarded.

Women's pensions in many systems continue to be based on a notion of dependency. If total pensions are determined by contributions paid and if benefits are earnings-related - as they tend to become in an increasing number of countries,** - they are likely to differ substantially for women and men. The problem in this is that marriage and family responsibilities, domestic circumstances, such as caring for elderly relatives, have in the past prevented many women from paying the number and amount of contributions required. But it can be argued that marriage should not be a reason for a woman not to pay the necessary contributions required for effective financial protection in her own old age, in her own right.*

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* A survey of first and second tier pensions for employed people in sixteen European countries showed that, in April 1972, the retirement age for women was three to five years lower (at least in some schemes) in nine of these countries. The principal exceptions were in the Northern countries. (Employee Benefit Plans, Europe, Ltd.: A Comparative Survey of the Social Arrangements in the Principal European Countries. Brussels and London, 1972.)

** Healey, D.T.: "A National Superannuation Scheme for Australia?" in "Australian Journal of Social Issues" (Sydney) 8, 1 (February 1973) 13-23.

A related problem is that, under many occupational schemes, a large part of the pension is lost on the recipient's death. This is bad enough for the widow (where the recipient was the deceased husband) but, under many schemes, even more unfortunate where the position is the reverse.

The preceding discussion shows that a simple comprehensive superannuation scheme for all residents at a prescribed age without other qualifications may well meet requirements best, from the pensioner's point of view. Such schemes exist in a number of countries. But, because of the high cost - if people with other resources are not excluded - such universal schemes provide as a rule only a small proportion of income needed by the retired. The scheme for "extended national superannuation" outlined by W.B. Sutch would go far beyond this.**

3. The third issue listed above raises fundamental questions of redistributive fairness in relative incomes and wealth. These become particularly acute in times of inflation. They appear to be far from resolved in any society of the present day. This general issue raises also in acute form the somewhat secondary question of what, in continental Europe, is often referred to as "inter-generational solidarity". If only simple principles of relative incomes could be widely agreed it would not be difficult to put them into practice by various means, including taxation and what has come to be known as "negative tax", etc. But what is involved in agreement on principles of this kind is not primarily a problem of relative incomes of different age groups.

The conflict between the older and the younger is more apparent than real. Many of the middle-aged tax payers and contributors to social assurance are well aware that, in a not so distant future, they themselves will be at the receiving end of such schemes. Even the less poor among them realise that it is becoming increasingly difficult to make satisfactory private arrangements to meet their own financial needs later.

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* Interestingly enough, the Crossman Report in Britain arrived at the opposite conclusion: "The Government have concluded that there is no satisfactory way in which housewives could be credited during marriage with earnings they have not in fact received, in order to help them acquire pensions independently of their husbands' records." (Department of Health and Social Security: National Superannuation and Social Insurance Proposals for Earnings-Related Social Security. London, H.M.S.O., (Cmnd. 3883) 1969; paras. 72-85 and Appendix I para. 28.

** Sutch, W.B.: The Distribution of Income under Social Security", in: The Responsible Society in New Zealand, op.cit., pp. 131-141.

In addition, there is the interest of many career-minded younger people to see their seniors enticed away by adequate pensions and thus voluntarily vacate positions in which the older impede advancement of their juniors.

4. The danger of those already retired finding their income "replacements" becoming more and more inadequate as prices rise is widely recognised as a paramount issue, in these times of savage, almost uncontrolled, depreciation of money.

Although it may at first sight appear to be a highly technical economic and financial problem it is in fact essentially a gerontological one in that it determines the degree of dependence or independence of the retired. It is singularly unfortunate that it should be widely regarded as too "technical" a problem for general discussion and therefore left to "experts". For it is in the nature of "experts" to leave the human and social issues to one side while concentrating on the **"technical" challenges involved.**

The two aspects of keeping up the real value of money payments, sometimes referred to as "dynamisation, type I" and "dynamisation, type II", present distinct problems. Adjustments in payments of the first type (compensation for increases in the cost of living) are easier to make than those of the second (to keep incomes of the retired in line also with real incomes of those still economically active).*

Provision for changes of the first type is made in every system; even funded schemes seek to be inflation-proof. The need for the first type of dynamisation is not disputed. The formulae used and the frequency of adjustment vary.

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* Difficulties facing purely funded schemes in even only this first type of dynamisation become clear by analogy with ordinary private insurance. It is not easy for companies of that kind to guarantee annuities of constant real value, even in countries where there is a highly developed capital market. Pension funds restricted as to type of investment permitted - and therefore as to yields obtainable - may find the difficulties even greater.

Pension adjustments for falls in the real value of money are now, in very many schemes "semi-automatic" or "automatic", in the sense that they are linked to some index of retail prices or cost of living.

This means that pensions are increased, in very many schemes, by a prescribed percentage after the particular index has risen by more than a specified number of percentage points. Transition to such "automatic" linkage occurred, in many schemes, only after large numbers of ad hoc upward revisions had had to be made over the years, on each occasion by cumbersome, time-consuming legislative and administrative procedures. In the United States, e.g., pension rates were adjusted at rather irregular intervals, and only after considerable debate and delay before automatic adjustment procedures were introduced in 1972.

Many types of pensions were previously reviewed at prescribed time intervals, half yearly, yearly, every two years or, even only when sufficient pressure had built up. This situation still prevails in many schemes.

But even the so-called "automatic" linkage of pensions to an index is not necessarily the perfect solution it may appear to be. And this for two reasons. There is first, by definition, a time lag. Cost of living must have risen before adjustments in payments to pensioners are made. This lag can be overcome to some extent by making pension adjustment retroactive. Even if this is done the pensioner bears the brunt out of whatever reserves she or he can muster, until the extra cash is actually paid. The second reason is that a general index of prices frequently does not reflect satisfactorily the rises in prices of the commodities and services that weigh heavily in the pensioner's budget. It is clearly preferable to construct a special index based on small quantities of articles bought in local shops,and not distant supermarkets, weighting it for commodities and services important in budgets of this type.

In much of this discussion the word "pension" has had to serve, for the sake of simplicity, to cover all cash payments. But in this particular subject (increases in cash payments to compensate for higher costs) cost of sickness and chronic ill health loom large for the old and retired. Few costs have risen as sharply as those of ill health* and, within this sector, notably hospital and institutional treatment. There is no system where these costs are borne in their entirety by the patient. There are few where some part of these dramatic increases** does not fall, directly or indirectly, upon the latter.

It might be argued deductively that pension schemes as such might be rewarded if they contribute, by generous payments, to keeping their members in good health. The reward might be that the pension fund would not have to contribute as much to expenditure on sickness. Put the other way around, the funds might be penalised for parsimony by having to contribute more.*** Mutatis mutandis, similar theoretical considerations apply to housing accommodation.

The second type of "dynamisation", i.e. preventing retired people's standards of living falling well below those of the active population raises much more difficult problems. It is not hard to see why this should be so.

There is, first, the relatively simple problem of the yardstick by which the general level of the active population could fairly be measured. This requires clarifying, first, an ambiguity about this type of dynamisation. It may mean either that pensions as a whole should rise by (about) the same proportion as incomes of people at work or, alternatively, that each pension should rise by that proportion. It is not difficult to see that these two formulae will yield quite different results if the ratio of the number of people at work to number of people on pensions alters substantially. In discussions on dynamisation of the second type confusion arises sometimes as a result of this ambiguity. The problem has been tackled by the use of different formulae and different types of solutions attempted in various European countries.

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* Arrangements for paying for ill health fall, by the arrangement adopted in this chapter, under the next heading. But ill health of the retired represents an area where pensions and services are in practice more usefully considered together.

** For instance, in Ireland, hospital costs rose by 308 per cent, comparing 1972/73 with 1962/63. In other countries increases were much greater.

*** The sharing of costs of ill health between sickness and pension insurance has been the subject of considerable discussions in the German Federal Republic. It was envisaged in 1967 that pension funds would have to contribute 20 per cent to health insurance of pensioners. It was reported in 1973 that they had spent in effect a constant proportion of 11 per cent on sickness of pensioners. Sickness funds spent in 1969, 23 per cent; in 1970, 30 per cent; in 1971, 39 per cent on pensioners' sickness: correspondingly more in subsequent years. The sums were greater than the level anticipated and well above the level bearable by these funds for any great length of time.

The main problem is to find a formula for one of the main components of retired people's cash income that will keep their total income at a reasonable level in relation to the rest of the community without overtaxing any particular section of society.

Whether "pension points" proposed by actuaries are adopted (as in France), or an index of negotiated wage rates (as in Holland) or average earnings (as in Belgium) or whether (variable) supplementary pension rates are simply adjusted on an ad hoc basis, the question of fairness will continue to be debated, mainly because the cost must, somehow, be met out of current revenue: met by people who will not necessarily themselves benefit from the extra payments imposed on them. Ultimately, only the State has the resources required. Sir John Walley is, no doubt, right when he points out that any government or parliament will find it extremely difficult to impose on its successors firm long-term commitments of this kind amounting in effect to a blank cheque.* The problem is not necessarily solved by inserting into a country's constitution an article stipulating that retirement income shall be related automatically to the cost of living.

The different approaches to the solution of the problem merit closer study. The difficulties may turn out to be less great than they appear at the time this study is being written. It may depend on whether lower but steady rates of economic demand and growth become acceptable and on whether inflation can be brought again under effective control. If deflation were to become a goal of economic policy and if large numbers of foreign migrant workers were to be expelled from the richer countries - where they now work and help to swell pension funds' incomes - the problem might be aggravated, and exported into the bargain. Speculations of this kind involve a number of complex relationships and assumptions that require close analysis.

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* Walley, Sir J.: Social Security. Another British Failure? Op.cit., p.136.

5. Means tests are rejected by some critics on first principles, as being humiliating and an affront to human dignity. Those who reject means tests unequivocally object to prying into people's personal affairs on grounds of "selectivity". They object to the principle of charity for the "genuinely" destitute. These objections have deep historical roots, associated with inhuman treatment in infirmaries, asylums or by outdoor relief of those unable to support themselves or induce their families to support them. This point of view is philosophical and absolute, analogous to that which rejects war and violence categorically under any circumstances whatsoever. Logically it is unattackable. But, logically, such critics should reject also, one would imagine, declaration and investigation of means for purposes of direct taxation.

Other critics object to inquisitorial methods used by administrators and bureaucrats to distinguish genuine need of "claimants", that is old people needing payments from public sources. These critics object primarily to the latitude of discretion given to the administrators and to criteria used for establishing need. They cite anomalies showing that means tests waste more public money than they save, achieve often socially undesirable results but, most important of all, perpetuate abject poverty, by deterring those most in need from ever claiming payments to which they are entitled under the law.

Objections of this second type may be met in two ways. First by basic payments at a level not wholly inadequate for normal cases. But with the important proviso that such basic payments include a right to additional amounts. This may satisfy these critics if such complementary amounts are subject only to simple qualifying conditions such as level of rent, number of dependents, etc.

Secondly, these critics may accept means tests which include liberal "disregards" in the sense of means left out of account in assessing recipients' needs.

In England, Ireland, Australia, New Zealand, perhaps in most countries with some British tradition, adequate provision of means in old age, subject to some test of private means can be traced to the Superannuation Act of 1834 (4 and 5 William IV c.24) which provided for civil servants' pensions. It stated the principle clearly:

> "And whereas the principle of the Regulations granting Allowances of this Nature is and ought to be founded on a Consideration, not only of the Services performed by the Individual to the State but of the Inadequacy of his private Fortune to maintain his Station in Life."

The entire pension was thus clearly not unconditional.

Some observers have noted that the most rigorous means tests for supplementary cash payments in retirement obtain in countries with schemes providing the highest levels of payments. This would merit further investigation.

We have noticed earlier that the hardest hit by inadequate cash payments are those who cannot fulfil qualifying requirements during early transitional periods before a scheme is in full operation. Experience shows, such "transitional" periods may last decades.

Some would argue that the very existence of means tests reveals basic defects of a scheme. They feel it should not be necessary to add increments and improvise ad hoc additions. Schemes requiring such complements for a high proportion of beneficiaries should be completely revised. No questions of means tests arise in schemes with a purely insurance character. It is therefore said by some that social provision should tend more towards principles of insurance.

As against this, it is argued by others, means and needs differ so widely as between different individuals and families that generous public provision is the only way of dealing with the problem. They ask therefore that there should be lists of legitimate needs and conditions under which they are to be met out of public funds set aside for the purpose.

But even when all the elements are taken out of means tests to which critics other than the fundamentalists object, when basic pensions are increased and supplements granted as a right on simple qualifying conditions ... even then there will still remain an area of circumstances of exceptional needs of particularly unfortunate people. If such conditions are not to be simply ignored public schemes or private aid have to come to the rescue. It is hard to see how regulations for any public schemes can deal with emergencies except by setting aside funds and permitting discretionary use of them.

Under this heading of means tests falls also the so-called "earnings rule". By it, under some systems, pensioners are deprived of part of the pension if they earn more than a certain amount by doing paid work - at least during the first years of retirement. Collusion between pensioners and those willing to pay them to work, and evasion of such rules where they exist, show that not only gerontologists are concerned about healthy older people being permitted to work.

Means tests, far from being a purely technical issue, raise in fact broad questions of social philosophy and psychology. Is possible abuse of public funds a danger greater than that of needy people being left unaided? The treatment of widows of different ages, under different social security schemes, may be taken as significative of social and gerontological thinking implicit in social security.

6. Transferability of rights to pensions is much discussed in the two contexts of occupational and of geographical mobility during working life. Since most gerontological problems have their origins in earlier occurrences in life this is, in that sense, a general gerontological problem as well as a problem for social security.

Within a country, occupational schemes may tie a worker to a job he would leave if only his acquired pension rights were properly safeguarded. This applies particularly in middle age when people become more aware of problems of retirement income and protection. Occupational schemes have in fact been used by firms to exert pressure to prevent employees leaving. The interests of the employing organisation, the individual and the state may conflict as regards facilitating occupational mobility and mobility between different undertakings. In order to protect the individual in this respect, as well as for other reasons, states have therefore had to take an interest in supervision and to exercise some measure of control of occupational schemes.

Universal transferability has been delayed sometimes on the ground that occupational pension schemes are so different from one another that it was impossible to equate the rights of a man in a scheme providing a pension at 60 but no continuing pension to the widow with a scheme providing a pension at 65 but with a continuing pension to the widow and so forth. In fact it is simple for any actuary to put a cash figure on a person's future pension right and contingent dependents' rights at any point in that person's career. In many cases it pays a contributor to keep pension money in a former employer's scheme.

One of the important changes under the Joseph scheme* in Britain will be the compulsory preservation of pension rights in all schemes from 1975. Anyone changing his employer, after that date, who is aged 25 or over and has completed five years' service will be entitled to keep a preserved pension under his existing scheme in respect of all his service till then, or take a transfer value into his new scheme - whichever solution is more advantageous to him.

In France the problem has been solved through federations of occupational schemes or, if a man moves from worker to supervisory status, he may draw eventually two pensions. In Holland there is a fairly universal clearing system whereby the pension is eventually paid by the fund of the last industry where the person worked. In Sweden standardisation of benefits, as well as arrangements between insurance institutions, have facilitated mobility while safeguarding acquired rights. Arrangements are often complex, especially in unfunded schemes, because of differences in rights, alluded to above. But experience has shown that, even where differences are great, the problems can be solved through broad co-operative arrangements.

Mobility between countries poses different and greater problems, and it is not helped by instability of currencies in recent years. In some cases there are bilateral agreements between countries of immigration and emigration. Movement within certain liberal professions may not even involve transfer from one occupational fund to another. But such cases are rare.

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* Strategy for Pensions. The Future Development of State and Occupational Pensions. London, H.M.S.O. (Cmnd.4755) 1971; paragraphs 63-68, and Appendix 2. Cf. also the previous government's abortive scheme. National Superannuation and Social Insurance .. etc. London, H.M.S.O. (Cmnd. 3883), 1969; paragraphs 159-163.

The great mass of migrant workers come from one of the poorer countries and work in one or more of the richer countries, for many years. They work there, more often than not, on menial jobs. They need protection more than many others. Most of these workers are single people well below the age of retirement. Many of them give little thought to the problems that will face them and their families when they reach that age.

The European Economic Community has specific powers under the Treaty of Rome to facilitate movement of people within the member countries. A Social Fund was created to facilitate this. In so far as migrant workers of one E.E.C. country working in another are concerned, their pension rights appear to be fully safeguarded, however short employment abroad. Migrants from outside the E.E.C. seem, on leaving, to have the right to recover their own contributions while the employer's may remain as a clear profit to the pension fund of the host country - except where the matter is governed by special bilateral arrangements.

As regards old age provision within the E.E.C. there is no sign hitherto of standardisation or of any common social policy or social security policy.* In the case of the old age pension, the total benefit will usually consist of the appropriate proportion of the pension applicable to each country concerned, depending on the length of insured service in each. Total benefit would therefore not necessarily be at the same level as that of a contributor who had not worked abroad. The reason for this is that a country will not assume responsibility for more than it would for its own nationals at home for the same length of contributory service. T.H.M. Oppé has observed that the difficulty would disappear if there were complete uniformity of pension entitlement expressed as a percentage of final salary per year of insured service.**

7. The issue of whether age or retirement should determine pensions is discussed in different contexts throughout this book. It is typical of those issues where social security might translate into policy results of

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* A Committee of the E.E.C. in 1973 presided by Mr. Werner, Minister of Foreign Affairs of Luxembourg, recommended "budgetary harmonisation" of social security, in the long run.

** Oppé, T.H.M.: "The Implications for British Insurance of Joining the European Common Market", in "Journal of the Institute of Actuaries", 97 II/III (1971) 153-198.

gerontological research. It is to be hoped that this may be done to an extent greater than hitherto.

Two points seem particularly pertinent in the present context: (a) Rigidity or flexibility in social security and fiscal policy can make or mar the well-being of retired people - much more than is widely appreciated. Moreover, the practical application of policy in this regard is more important than policy itself. (b) Individual and occupational differences in wishes, needs and circumstances in this respect are very great. Furthermore, the same retired person's needs often vary over time.

Widespread discussion of this issue is of particular interest in both social policy, including social security policy, and in general gerontology. The work done in Germany, especially but not only in the Federal Republic,* and the new regulations in the latter country on flexible retirement age, merit very close study and attention elsewhere. It is certain that carefully documented empirical research work in gerontology and social medicine and the results - as well as economic considerations - have influenced the new German social security policy.

Particularly interesting also are gerontological findings in the Soviet Union - a country to which little reference has been made in the earlier sections of this chapter, because social security and social services in the U.S.S.R. and other Socialist countries of Eastern Europe, are linked in a way which makes them more suitable for discussion below. Research work of the Kiev, Moscow and other institutes of gerontology is reflected in policies giving considerable material incentives to healthy (and even less healthy) older people, to encourage them to continue (or to take up) *reasonable* occupational activity, under *easier* working conditions, including especially part time work. These arrangements merit far closer attention than they have received hitherto outside those countries. Cash benefits are a by no means negligible aspect of Soviet policy in this regard. Prevention and arrest of premature ageing and sickness are the declared and conscious motives in determining social security policy in this field. This is impressive.

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* Much of this work is reflected in papers published in the proceedings of the German Gerontological Society. If one were given the invidious task of singling out one particular author it would be perhaps Prof. Ursula Lehr: not only the intensive empirical work of her group at Cologne but also the surveys of corresponding studies elsewhere in the world.

It cannot be overstressed that flexibility of retirement age implies provision of openings and possibilities to work for the retired: thus offering them opportunities to remain active members of the community and the world of work *if* they so desire. It implies that the opportunities offered must be related to circumstances suiting each particular one of them. It implies equally certainly that there should *not* be any kind of *coercion* or economic pressure on the retired to continue working.

The three questions (a) whether pensions should be old age or retirement pensions or a combination of both, (b) the cost of earlier retirement and, (c) the social and financial aspects of later retirement can, by now, be well documented by experience. Methodical study of the subject, from social security as well as gerontological angles, should be possible. This would greatly assist to produce solidly based discussions among those interested in general social policy, in demography, in social security finance, general gerontology and geriatrics.

8. Broader general issues of possible conflicts of goals in policy affecting the elder population are, usefully, kept as a (more or less) distinct issue. The problems posed vary greatly between countries, schemes and over time in different phases of the trade cycle. Because they involve analyses of demand and cost inflation they may at first sight appear unsuitable for discussion by those not versed in economic thinking and jargon. Temptation to use pension levels as a kind of stabiliser may increase: not because there is a trend for pensions to reach hyper-generous levels but because of the increase in the number of recipients of unfunded pensions. The total amount expressed in terms of national finance is by no means negligible. Even if such fears should turn out to be not entirely justified there is little doubt that the length of the time-lags in pensions adjustment, in times of demand inflation, can be affected by short-sighted economic thinking of this kind.

Cost inflation - which it has become the fashion among economists to distinguish sharply from demand inflation - tends to hit particularly housing and other services considered to be "uneconomic" - but not therefore any the less vital to those above retirement age.

Contributions which the economically active people pay for future pensions have undoubtedly an influence on labour costs. Hence they affect costs of products and services not only at home but in markets abroad. They are therefore one element affecting a country's competitive position and its balance of trade. How important this element is seems germane to the present discussion, in so far as it may act as a brake to better and speedier provision of such "uneconomic" payments, if the importance of this element is as great as is sometimes alleged.

The reason for listing this subject here among the major issues is that very broad economic policy decisions are often taken without due account being taken of considerations **dismissed** by economists as non-economic and therefore not relevant.

9. Simplification and rationalisation of cash payments are subjects receiving widespread and constant attention from specialists in social security. In regard to cash payments in old age and retirement income replacement schemes of all kinds this applies particularly to methods of recording and evaluation. Modern office procedures, a gamut of electronic gadgetry - not always parallelled by a capacity for writing programs for it - fuel this trend and desire.

It has often been said that the clerks and administrators, freed by computer-related equipment from dull and deadening routine work, would thus have more time for direct and human contact with the individual person for whose needs it is their function to cater. It is certainly a desirable objective to speed up and avoid delays in paying out what is due. The discussion of the means test and other issues referred to above may have served to show how great is the need for humane attitudes of administrators. This requires time. It requires also training. The installation of simple data banks brings programmers and a variety of other personnel performing computer-related tasks into the institutions. In what way this may help to humanise relations between institutions and beneficiaries may be worth closer investigation.

Computer programs, at the present stage of the art, tend to record information in yes-or-no, black-or-white form, leaving very little opportunity for the "yes-but" or "grey" of individual circumstances. This is no argument against the use of computers, utilised in any case more and more widely, in old age and retirement assurance as elsewhere. It is a plea for a reconsideration of purposes for which present-day computers can be useful, purposes for which they are not, and for reconsidering uses and limitations of computer-recorded information: a reappraisal no less called for in social security than in diagnostic and curative medicine.*

10. The financial issues raised under heading 10 above** may seem to constitute something of a digression from the main discussion of the circumstances of the retired. They are in fact directly relevant. Financial considerations have in the past, in many schemes, provided a catalyst for change in the regulations governing membership of the schemes and calculations of levels of benefit.

Theoretically, the range of possible ways of financing income-maintenace in age and retirement schemes is unlimited. Treasury subsidies - out of specific taxes or out of general funds - have played a growing part especially in "supplementary" age or retirement schemes - also in survivors and disability schemes; a lesser one of course in second tier schemes. ***

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* This topic is considered in a broad frame of reference in: Rhee, H.A.: Office Automation in Social Perspective. The Progress and Social Implications of Electronic Data Processing. Oxford, Blackwell, 1968. (passim) and idem: The Rational Use of Electronic Information Processing in Social Security. Problems and Prospects. Geneva, International Social Security Association, 1970.

** p. 104 above.

*** For a good discussion of the subject of, for example, "State and Occupational Pensions Provision", a discussion reported in "Journal of the Institute of Actuaries" (London) 98, I No. 409, 1972; 1-16.

Future beneficiaries' contributions are an element in most schemes. They are in effect a kind of tax on wages and salaries.

However illusory in reality the insurance character of a scheme the potential beneficiary's own payments give him, the person affected, a claim for a say in the scheme's management. It is none the less true that where the proportion of employee contributions is high, as it is for example in the Netherlands scheme, increases have been reflected almost immediately in higher wage claims. Employers' contributions are often passed on to the consumer in the form of higher prices. They may thus hit the poorest hardest. That includes the retired, unless commodities and services they need most are subsidised or free to them.

All schemes, including fully funded ones aim at becoming pay-as-you-go schemes on reaching maturity. Monetary instability and rapidly declining purchasing power of money impose a very severe strain on funded schemes, particularly as investment of funds is usually subject to severe restrictions.

Questions of earnings-related benefits for earnings-related contributions, as against flat rate benefits for flat rate or earnings-related contributions, are widely debated: though perhaps not as widely as they deserve to be. Arguments of various kinds are heard. Differences between first and second tier schemes may lead to preferences for different financing of basic and occupational schemes. What matters in a gerontological context is how far total cash incomes of the retired cover their needs. But cash income, important though it is, has to be considered in conjunction with services other than cash available to the pensioner.

* E2. Services

The needs of the older and the retired people are met to varying degrees by services in kind as well as by payments in cash.* Broadly speaking, the healthier, stronger and more independent the retired or older person is the more he feels he needs and wants cash payments and the less important to him are special services. Freely disposable monetary resources give the individual choices of spending, choices that the normal healthy person wants. This freedom of choice helps to maintain a status of independence that leaves him more nearly on a par with those below retirement age.

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* Cf. pp. 82 - 84 above. "Services" should here be taken to include all organisational arrangements in forms other than cash which have as their direct and primary objective the well-being of retired people in a social context.

The gerontologist, perhaps for this reason, is more likely to be familiar with social services than with the social security system which has the function in most countries of being responsible for money payments. Although its aim and purpose is the study and promotion of healthy ageing,gerontology has in fact been concerned rather more with pathological ageing.

The worse his health, the frailer, poorer and more isolated and perhaps disoriented and dependent the ageing human being, the more he comes to rely on services.

The point should not be overstressed, for certain health services are of course needed by the entire community. Housing and the whole infra-structure of town and country planning,* the management of the environment, all include services which most societies are impelled to provide for people of all ages. Advice on all manner of subjects in the complex society of this age is indispensable. Not the least important kind of advisory service the individual and the family need is that regarding their own rights under social security systems. Advice on that subject is one service invariably supplied by social security institutions themselves. In fact, many services as well as cash payments are supplied by some social security systems.

The range of social *services* is so wide and the differences between social systems are so great as to render discussion of them difficult. At first sight it may seem that this difficulty might be overcome by considering social services** within one country, show their functions and problems as they occur within that country and then see how these problems are met by different systems in other countries. It is likely that it would be found soon that the problems of services in a second country were totally different.

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* Cf. Elsholz, G.: *Altenhilfe als Gegenstand rationeller Infrastruktur*. Hamburg, Weltarchiv, 1970.

** These are equated here mainly with services in forms other than money.

Alternatively, one might look at social services for older people **only in** a very broad and general way. On balance, the latter seems a somewhat less unsatisfactory approach. Social services provided by large numbers of statutory or voluntary agencies, in different traditions, are too dissimilar. Consequently it seems best to keep this brief discussion extremely general. Moreover, social services for the older, retired and poorer citizens cover so wide a range of facilities needed and (not always) provided that close familiarity with the system of social services, as well as social security, of any one country might be counted a considerable achievement. Comparison between even two relatively similar countries is extremely difficult if it is to be close enough to be significant. Comparisons on an even wider scale would require encyclopaedic knowledge and assume corresponding proportions.

Differences and ambiguity in terminology of social services for older people conceal underlying divergences in approaches and in social philosophy. Social services in most of the more highly structured countries are characterised by the wide range of authorities, often entirely independent one from the other, as well as by differences in the ways in which such authorities and organisations see and meet the problems. Moreover, many kinds of social service imply a much more personal contact between the people using the service and the professionals supplying it than, say, payment of pensions.

The problem of discrepancies between application in day-to-day practice, on the one hand, and precepts and rules, on the other, is much more acute in regard to services than in the case of cash payments discussed at some length above.

If our aim were to obtain a picture of administrative structure rather than that of seeing how well the retired man's or woman's needs were met, the task would be considerably easier. It would be possible at least to point out where a social security institution is responsible for supplying a service and where it is not. In most cases it would be easy also to say what other central authority is responsible for it.

Social provision for the retired and the old has to be seen as a whole, if only to determine the extent to which needs are not met by cash payments and social security institutions. Those who direct and administer these institutions have therefore given some thought to the extent to which they were meeting needs for services and how much further they felt their own institutions could and should go in this direction.

The International Social Security Association, in the middle 'sixties, examined, through several of its Permanent Committees, the role of general social welfare services in safeguarding and ensuring that social security needs were met. This was done by means of inventories showing what services - as distinct from cash payments - were then provided by member institutions in different countries. One of these inventories dealt specifically with old age and retirement insurance institutions. A request for detailed information on this subject elicited replies from a fair number of member institutions in different parts of the world. But the replies showed that, on the whole, only a relatively small proportion of these institutions in the world provided services as well as money payments.

A kind of border line "service" provided by a number of these institutions at that time was an arrangement whereby monies due as pensions were handed over to persons other than the beneficiary in cases where the latter was not able to manage his own affairs. The beneficiary would thus receive his pension in kind instead of cash. But it could hardly be said that these payments in kind were then supplied by a social security institution. A number of the institutions took some responsibility for institutional care (other than hospital care) in old people's homes, rest homes or convalescent homes. But where institutions assumed such limited responsibility it was mostly financial rather than direct provision. A few of the institutions who replied to the inquiry subsidised - and fewer still provided - day care centres, home help services, meals, recreational facilities and counselling or advisory services of one kind or another. Many social security agencies took the view that to provide any of these services, or indeed services of any kind, was not the function of institutions such as theirs. In cases where institutions helped to finance services they did so, generally, out of special funds set aside for the purpose. In other cases, those responsible in the institutions felt their bodies had a function to coordinate services provided by other agencies.

The general subject of the relationship between income maintenance and social service benefits was explored at a "round table" (meeting of specialists) organised on the occasion of the XVIth (1967) General Assembly of the International Social Security Association and pursued further, six years later, at another "round table" held under the auspices of the Association's Advisory Committee on Social Security Research.

These discussions showed* that the participating specialists saw it as the central function of social security to provide cash income to pensioners and their dependents and other specific beneficiaries under clearly designated conditions. They acknowledged none the less the need for services in forms other than cash to achieve the aims of social security, in certain circumstances, in order to (a) supplement payments of money, or (b) as substitutes for them (e.g. institutional care) or (c) to offer advice to beneficiaries on using benefits effectively.

Furthermore, a distinction was made between three types of relationship of services to social security institutions: (i) the case where services were provided and administered directly by such institutions, (ii) services financed entirely or partly by them, but provided by another agency and, lastly (iii) services not provided by them, but for which they had a formal relationship with agencies supplying them.

The discussion in 1973 cast some light on the problem from the angle of general social planning. Social budgetting, it was observed, had led in a number of countries to a search for suitable social indicators (as distinct from purely economic indicators). This impelled social planners to study relative effectiveness of services and cash transfers. The matter was looked at inevitably from the planners' rather than the recipients' angle. It appeared that in many countries, while social security showed a trend towards becoming a more integrated and centralised system (and also in some ways more comprehensive) in social services there were some developments going in the opposite direction: away from central control but sometimes towards coordination at a local level. Also a trend was noticed in certain countries towards increased competition between agencies supplying needs of older people in these two forms of applying social policy, for ever more centralised public resources. In other countries, it appeared that there was a strong drive to coordinate both - and fiscal policy as well - for policy objectives such as inter-generational income distribution. A description of the systems in the Eastern European (Socialist) countries showed.free facilities and services for older people, whether retired or not, were, together with pensions and monthly allowances, regarded as part of the social security system. In particular this applies to free preventive and curative treatment to avoid premature ageing. Considerable resources are devoted to treatment of pathological conditions at a sufficiently early stage to offer reasonable hope of success. Pharmaceutical products are supplied, under the social security system, entirely free of charges, in many of these countries. There are policies to set up more specialised hospitals for chronically ill geriatric patients. But social security institutions encourage care in the older patients' home environment wherever possible. Social security is associated with policies placing considerable emphasis on social and preventive medicine and on maintaining the older citizen's status in society. Day centres and clubs are seen as a way to replace the disappearing three-generation family. Pensioners' clubs are promoted with the deliberate aim of countering isolation and solitude. These policies, facilities and services are considered to be part of the social security system.

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* Cf. Note in "International Social Security Review" (I.S.S.A. Geneva) XX, 2 (1967) 193-196; and also, Titmuss, R.M. "The Relationship between Income Maintenance and Social Services. An Overview", in "International Social Security Review" XX, 1 (1967) 57-66, and: International Social Security Association: The Role of Social Services in Social Security. Trends and Perspectives. Geneva, I.S.S.A., July 1974. (Studies and Research Series)

The distinction made by the social security specialists referred to above, in regard to services and money payments, is a useful one. It is worth considering under what conditions and for whom social provision should take one or the other of these forms. Looked at from the recipient's rather than the social security agency's point of view, the order* might be changed, to consider first those services provided in forms other than cash and, through agencies, other than those of social security; next services supplementing money payments and, last, advice on social benefits of all kinds and how best to use them.

A service falling, in one social system or for one category of older people, into the first of these groups might well best take the form of the second, in different circumstances. Criteria for these circumstances are the most interesting aspect of this question.

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* Cf. preceding page (132).

In considering provision better supplied in kind, that is in the form of service rather than cash, it is useful to recall that social services developed, in many instances, out of social "assistance" and "welfare" for the poor and the old. The connotation of charity may since have disappeared, partly or even entirely. But it was inherent in the philosophy of public assistance to supply aid in kind, and that only to the genuinely destitute, and them only on proof of need. Hence, if today a social agency supplies a service, that is, provision in kind, it is not surprising that a stigma often remains, a lingering memory of past associations of such service.

Secondly, services are generally much more difficult to evaluate in quantitative terms than the monetary benefits replacing income which were discussed above. Services can vary greatly in quality. Supply by one agency only may be more economical from an administrative point of view. It will not necessarily make it easier for the beneficiaries to have a service improved - particularly if it is a highly structured or closely guarded professional service. The recent demand for ombudsmen in health services may illustrate this point.

Health, housing, transport and communications fall, under most systems, not into the categories of provisions with which social security is equipped to, or willing to deal - as the I.S.S.A. survey of 1965 among its member institutions showed. But, if conditions in any of these aspects of retired people's lives are allowed to deteriorate beyond a certain point the people affected are compelled to turn to some social agency for help. In each of these areas of social provision normal cash payments to healthy and relatively independent people may help them to buy some services in each of these areas out of the payments they receive. In health, the area where this is feasible is very restricted.

There are large areas in all these fields where a service must be provided either as a substitute for cash payments or in addition to them. If the service is provided in place of cash payments this gives emphasis to the "normative need" discussed above. Where "normative need" corresponds with the other types of need referred to there, this raises few problems. Where "normative need" and "felt need" diverge widely the public interest may still make this solution desirable. But the planners do well to be aware of the conflicts and tensions this may cause. The analysis of needs outlined earlier may perhaps help in practical issues in deciding which is the best solution to adopt and also in determining the extent to which to involve social security.

Health is rather different from the other areas of need. Even in advanced old age, a surprisingly high proportion of people are not in states of advanced physical or mental infirmity. The proportion of the old in institutions is not the best measure, but Professor Shanas, whose work was cited earlier, noticed that, in countries she studied, a surprisingly low proportion of older people were in institutions. According to her estimates and also those of Pierette Sartin, a French gerontologist, about 80 per cent. of retired people were healthy enough* to live normal lives at home if only they had a home. This estimate of 80 per cent. excludes those bed-fast or house-bound.

It is clearly unjustifiable to take state of health as an independent variable. Many pathological conditions considered formerly as irreversible need no longer to be so regarded. But beyond this, the case for better preventive and social health services at earlier ages would make much of geriatrics unnecessary. Obvious though this is the practical conclusions remain to be drawn. The case for services rather than cash to deal with health at all ages seems unanswerable. It is sometimes argued, nevertheless, that since health is in the interest of patient, the state and social security, all three should be asked to pay, at least where the patient is of working age. But positive health control, including screening for disease precursors and latent sub-clinical morbid states can be developed only by regarding health as a public service.** It is mainly due to failure to do this on a sufficiently generous scale and make services known and accessible to people earlier in life that the burden of ill health later in life arises. In old ages, such monitoring services become indispensable and vital, as we shall endeavour to show in Chapter 10.

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* In statements of this kind we must allow for the fact that many not in institutions would have been in such institutions if there were room for them.

** "The occurrence of basically similar problems in individuals of younger age results in questioning the concept of geriatrics - geriatrics being defined as the practice of medicine in a specific age group ..." (G. Andrews, M.D.)

A study of thirteen local authority areas in Great Britain, in 1968, showed that 30 to 50 per cent of individuals of retirement age had not seen their doctors for six months or more.* Studies in various countries have shown that a fair proportion of elderly people are not receiving regular medical attention. A means-tested "pensioner medical service" (regarded as a "fringe benefit") such as existed in Australia seems hardly the solution to this problem.

The large number of very old people living alone** are a particularly high-risk group and require therefore special arrangements which lie in the field of accommodation and communications as much as in that of health. As a generalisation, one might test the proposition that the nearer a service is to health the stronger the case for treating it as a service of the kind to be substituted for social security cash payments.

In housing, individual needs can be judged by non-professionals, including the subject himself, in a way in which health can not. In most cases, it is of course utterly unrealistic to try to provide the pensioner with amounts of money sufficient to enable him to secure, in the commercial market, the accommodation he needs. Adequate complementary pensions, together with a fair choice of different types of housing subsidised by local or other authorities, may be a good solution to avoid problems of old age attributable to sub-standard housing. The question needing consideration is the extent to which society can meet the older citizen's need for extra monetary resources and, in addition, the variety of choices of accommodation which only society itself has the means to provide. A question which this raises is how far pension funds might go in utilising some of their reserves in providing subsidised accommodation.

A vast variety of services exist to enable people to live normal lives in their own homes as they grow old. These range from health visiting, district nursing, home help, chiropody, laundry service, meals-on-wheels, to free or cheaper telephones,* public transport, clubs, recreation facilities (including holidays) and a wide range of other social or socio-medical services.

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* Harris, A.I. and Clawson, R.: Social Welfare for the Elderly. A Study of Thirteen Local Authority Areas in England, Wales and Scotland. London. Butterworth, 1968.

** In Britain, it is estimated that 1.7 million of the retired or about one in five, live alone and that this number is increasing far faster than the total numbers. Special arrangements are needed for them, and also for others at high risk: people recently discharged from hospital, those recently bereaved, and others.

But in fact welfare services are established as a rule only in response to demand, i.e. "expressed need", which requires that the individual pensioners must first seek help, either directly or through an intermediary. Only in obvious and advanced instances of neglect, is help generally initiated without request. The question arises whether there may not be an "iceberg" of social and welfare problems of pensioners' uncharted needs. As for services already existing, it is not always easy for the older person to know where to obtain information on them.

Points that emerge from the preceding discussion are: the understandable reluctance of social security to venture too far into the field of services. At the same time, it is clear that certain types of social provision can in some cases only, in other cases best, be made in the form of services. The discussion should have shown also that alternatives of services from which pensioners can choose are a desirable objective. Sometimes, services plus cash may be a possible solution. The nature of possible and workable compromises is best ascertained by empirical investigation, perhaps with a theoretical framework of the kind outlined, to guide it. Where retired people's needs for services are different or greater than those of others it seems likely that differences in state of health and income are far more important than differences in age. But this does not lessen the need for services. Relationships between health and pensions assurance may require to be looked at afresh - in view of the alarming increases in costs of ill health and institutional care. This is a matter for social security in the traditional sense. The issue of preventive measures, stressed throughout this discussion, raises questions of social policy that go far beyond questions of how to cope with geriatric problems.

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* The telephone is increasingly recognised as a lifeline for old housebound people in emergencies and to continue to live independently. Studie über Fernsprechgebühren in der Welt. Munich, Siemens A.G., 1974, shows that costs of installation and calls, in terms of an index were 4 times as high, e.g. in France and Austria as in Canada or Sweden. The Federal German Telephone Service are planning to introduce a scheme for reduced costs to old and disabled people. Gilliand's study, op. cit., showed that at Lausanne, many of the handicapped old people had no 'phone. In a detailed longitudinal case study at Hull, P. Gregory provides detailed evidence of the vital importance of 'phones for the old, and the saving to the community by not having to accommodate them in institutions. (Telephones for the Elderly. London, Soc. Admin. Research Trust, 1973)

* F. The Retired and Defence of their Interests

In the light of cash benefits and services available to them it stands to reason that people above retirement age have a strong interest to maintain and defend and, indeed, to improve their level and quality of life. Many of the retired remain well below established and recognised "poverty lines". The proportion varies in different countries. But it is astonishingly high in the richer countries of the world. How much influence can and do the retired exert in the process of determining policies concerning such matters as pension systems, patterns of taxation, price levels, medical care, housing, transport and other areas of policy vitally affecting them? Do the retired in fact have access to power and act as a pressure group in the way that labour, manufacturing and other interests do?

Demographic tables cited earlier convey an idea of the existing and growing proportion of old people in total population, in various countries. If this ratio is expressed in terms of a country's electorate it is even higher. Considering that turn-out at elections tends to be higher among the older than the younger the potential weight of the retired is greater still. If one were to add also those who have retired early, those below retirement age but married to retired people, those approaching retirement age and those living in households affected by retirement income the importance of this potential interest group is considerable.

In the United States, where the subject has received rather more attention than elsewhere, it was estimated that about one quarter of the 20,000,000 people aged 65 and over had, in 1971, incomes below the official "poverty line". If one were to take a "near poverty threshold" the percentage of the older people living alone who coped with life below that slightly more generous standard was very much higher. The proportion of older people living as families and failing to reach standards laid down by the United States Bureau of Labor Statistics was as high as 75 per cent, at that period.*

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* Cf., e.g. Brotman, H.B.: "Measuring Adequacy of Income", *in*: United States Department of Health, Education and Welfare: *Facts and Figures on Older Americans*. Washington, Government Printer, 1971; *and* Soble, I.: *Background Paper on Employment*. White House Conference on Aging, Washington, 1971.

Numerically and proportionately, the people personally affected by issues related to retirement income and services could, potentially, be capable of doing much to determine policies. This raises the question of the nature and power of organised groups representing the interest of what could be a powerful minority in a country.*

In all countries there are a large number of organisations exerting pressure on issues related to retirement.** It seems useful to distinguish between two main types of policies for which these organisations attempt to exert pressure: (1) Direct income transfer policies and (2) "Middleman" policies and schemes.***

The first are policies aiming at increasing directly the purchasing power and the level of living of the retired (mainly through improvements in social security and services essential to older people).

Policies of the second type aim at securing larger funds and powers enabling specific public bodies, semi-public corporations, academic departments and institutions, charitable and sometimes private organisations, to pursue aims related to the study or to the supply of services benefitting the retired in various more or less indirect ways. This second type includes a very wide range of policies based on assumptions - warranted or less warranted - that the "middleman" activities will benefit not only the body whose activities the policy aims at strengthening, but also the retired themselves. This second type of policy may include aims which have an indirect effect on income transfers. The distinction between the two types of policies is useful. But it should not be exaggerated.

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* A carefully documented study of this question in the United States has largely influenced the treatment of this subject in this section of this chapter. Cf.: Binstock, R.H. and Lohman, R.A.: Identity and Power. The Case of the Aged. (A paper presented at the American Political Science Association, Annual Meeting), Chicago, 1971.

** Perhaps in no country as many as in the United States. The Secretariat of the American (White House) Conference on Ageing, in 1971, considered 400 such interest groups as sufficiently representative to be invited to send delegates to formulate policies on ageing in the 'seventies.

*** This distinction follows that suggested by Binstock and Lohman, op.cit.

In the United States there are three main categories of organisations at a national level concerned with retirement. First, organisations with a mass membership of retired people. They are few.* The two larger ones claim to represent the views of all older people. Secondly, "trade" organisations. Three of them represent long-stay care institutions; a fourth has a membership of administrators of agencies operating with government funds in the various states of the U.S.A. Thirdly, there are two main professional associations: The Gerontological Society with a membership of about 2,500 in 1971, mainly individual members concerned with research and teaching in gerontology, and the National Council of the Aging, with a membership of about 1,400 (1971) representing mainly social welfare bodies.

As for the first of these categories of organisations, i.e. those with a large membership of retired people, it has been argued by a number of scientific observers that, while these organisations have given evidence to government committees on legislation related to policies of the first type mentioned above (income transfer in favour of the retired) they have had a certain effect only on liberalising eligibility for social security benefits. But they have had little impact on eliminating the stigma of "welfare". Observers have found little evidence that policies represent the views of the membership.** Organisations of the second category have been concerned mainly with enabling their enterprises to function smoothly.

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* Together, the three main organisations claimed a membership of just under 6 millions in 1971: (i) The National Council of Senior Citizens, with a membership of about 3 millions, and financed by members' subscriptions was backed mainly by trade unions. It provided newsletters and pharmaceutical products at reduced prices and also group insurance. It came into existence in the 1960s to promote Medicare, and went on afterwards to promote similar goals; (ii) The American Association of Retired Persons and the National Retired Teachers' Association, functioning, for many purposes, as a single organisation, with a membership of about two and a half millions (in 1971). It was started in the late 1950s by an insurance entrepreneur. It provides periodicals, group insurance, pharmaceutical products, travel facilities, etc. at reduced prices; (iii) The National Association of Retired Federal Employees, the oldest of the three, with a membership of about 150,000, provides also periodical publications and discount facilities.

** Cf. Binstock and Lohman. op.cit.

The picture emerging from American studies of organisations concerned with the interests of retired people is chiefly one of struggles between organisational caucuses and bureaucratic apparatus for shares in what have been described as "middleman" activities; hardly at all, or much less, for greater direct income transfers to raise the level of the poorest of the retired above the poverty line.

It would appear that, large as is the number and proportion of the retired in the electorate, in the only country where this subject has begun to be studied systematically, the retired have had very little direct impact on redressing the economic situation in their favour. At the same time it is noteworthy that hardly ever has a successful politician taken a stand on an issue directly and openly opposed to the interest of the retired.

The age cohort of the retired, being very heterogeneous, have not combined to become a force to make their needs heard directly. Differences among the retired on other issues - and perhaps set patterns of attitudes on those other issues, formed over a life time - have dominated their voting patterns more than national or local retirement issues. Many of the retired do not consider themselves as old.* This helps to explain why they have not become a cohesive political force. Existing political forces have seen little need to appeal to the retired as a special interest group. The retired can neither strike nor reduce production, they cannot organise effective consumer boycotts. They are generally less inclined to disruptive activities than younger dissatisfied groups. Perhaps the needs of the poorest of the retired could be given force only if they combined with the poor of other age groups.

Welfare has been somewhat liberalised but existing patterns of inequality and causes of poverty remain.

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* Riley M W. and Foley Anne: Aging and Society. New York, Russell Sage Foundation, 1968.

6

Inflation

Inflation. Its Impact on the Older Generation. Fiscal Expedients to Aid Redistribution of Incomes among Age Groups

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> "Money is a guarantee that we may have what we want in the future. Though we need nothing at the moment it ensures the possibility of satisfying a new desire when it arises." (Aristotle: Nicomachean Ethics)

> "Inflation is a method by which the able-bodied rob the aged." (F. Blackaby, Adam Smith Professor of Political Economy, Glasgow, at meeting of the British Association, 1972)

> "We used to go to the stores with money in our pockets and come back with food in our baskets. Now we go with money in our baskets and return with a little food in our pockets." (From a description of inflation in the United States in 1864, after the Civil War. Anonymous)

> "Until the 1930s, inflation had been generally regarded as an infrequent problem, but a major and sometimes catastrophic one when it did arise ... after the widespread currency devaluations of 1949 inflation continued in most countries usually on a modest but persistent scale." (Sir Roy Allen, Professor of Statistics, London, in the middle '60s)

Inflation is a cause of gnawing anxiety for those nearing retirement and, later, old age who see the value of their life's savings crumble. Inflation at unpredictable rates is disquieting also to the public treasury faced with having to meet the mounting costs of providing the bare essentials for vulnerable groups of ageing people. An increase in the numbers of people needing complements to pensions may indicate a government's failure to keep inflation within bounds. Policies for ageing cannot be considered in a vacuum. They must be seen also in an economic environment. Some passing references have already been made in preceding chapters to the impact of inflation on social provision and other problems. Inflation and not altogether unrelated questions of fiscal expedients to aid redistribution of wealth among age groups are major problems. They are therefore considered in this chapter as fairly distinct and separate issues. But we must inevitably proceed from fairly wide economic considerations.

Is acute inflation of the type prevalent at present the result of a belief in its inevitability and of the advantages it offers to certain groups in society to enrich themselves at the expense of others? Is mild inflation a suitable means to placate certain groups of people of working age, as is sometimes suggested? Or is it true that even an attenuated form of inflation worsens the social climate, increases the difficulties in regard to house building and maintenance, the supply of services essential to the retired population and reduces an economy's efficiency generally, as others maintain? Almost all inquiries into effects of inflation show that older people are the principal group to lose by it. At least those of them who had hoped that, frae saving comes having, in the words of an old Scots saying.

Inflation therefore is seen often as a form of inter-generational conflict or,as an old Welsh proverb has it: One has to be neither strong nor bold to win a victory over the old.

This makes it desirable to look briefly at what inflation is; especially as the terms "inflation" and "deflation" have strong emotional connotations. Secondly, questions arise as to whether its causes and effects are such that inflation must now be accepted as permanent and, thirdly, whether means - in addition to those of social security, referred to in the previous chapter - can be devised to control its severity and, especially,to protect the retired population's savings against it.

Disagreement about inflation (and also about its converse, deflation) is less about its character than about its causes and effects. These are sometimes confused. This is reflected in policies for dealing with them.

Inflation and deflation describe situations widely regarded as inacceptable. Inflation is sometimes taken to denote only price rises in their most marked and disagreeable forms and deflation as indicating not only declining prices, but also falling economic activity and consequent unemployment on a large scale.

In fact the term "inflation" need not denote only extreme price rises, not solely the catastrophic reduction of purchasing power of money ending in complete monetary collapse and the destruction of funded pension schemes.*

Equally important is that terms such as inflation, price level, purchasing power, etc. describe average or central tendencies whereas, at any one time, individual prices of various goods and services are moving differently. Even if they move in the same direction, some change at much faster rates than others.

Moreover, inflation can gain momentum by a decline in the purchasing power of money abroad as a result of changes in various price and cost relationships there. This had led on occasions to devaluation or upward valuation of currencies. Therefore, prices of goods and services imported and exported change. Such movements may then intensify inflation at home through increases in components in various internal costs and prices. After a period of relatively fixed parities such realignments of currencies have become increasingly frequent** and have introduced an additional factor of instability.

Changes in the purchasing power of money are indicated by various kinds of averages expressed as index numbers acceptable to economists. Even if such an index of inflation represents prices payable by the ultimate consumer, a small change, or no change at all, in the index over a period may conceal considerable variations in individual prices of goods and services of widely varying importance to different groups in society.

Some consumers, especially among those in the younger and still economically active age groups, find it possible to pass on to others increases in prices they have to pay, in the form of price increases in services - and also goods - which they themselves supply: or, for that matter, in the form of lower real wages, which amounts to the same thing. People working in nursing and care for old people have in fact been victims of just such cuts. Their professional associations, where such exist, rarely engage in strikes and disruption. Most people, certainly most retired people, are unable to pass on increased costs resulting from inflation.

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* Cf., Wilson, T.: "Pensions, Inflation and Growth", in, "Lloyds Bank Review" (London) No. 18 (April 1973) 1-17.

** During the past 60 years, e.g., the French Franc suffered 22 devaluations.

This is the crux of the redistributive effect of inflation. The kind of redistribution resulting from inflation produces patterns directly opposed to those of redistributive social security. Inflation alters the distribution of income and wealth partly in a random and partly in an undesirable systematic way. Often those best able to absorb increased costs find it easiest to transfer the burden of higher prices to those least able to pay them.

Prices of different goods and services are not equally flexible and respond differently to inflationary pressure. Purely monetary assets and liabilities such as cash, insurance policies or bonds are completely inflexible unless they are linked to an index. Most monetary rent and interest rates are fixed contractually. They react therefore slowly to price increases. Prices of durable, marketable consumer goods have tended to rise faster than the price of food. This is because people who are able to stock them - however inessential such goods may be - so long as there is believed to be a future demand for them. Real estate prices overadjust to changes in commodity price levels. But the acquisition of real estate requires capital resources well beyond the means of most pensioners. Property of that kind is indeed used as a hedge against inflation, along with precious metals, works of art and the like, by those of the retired who can afford to do so. Government controls have however in many countries set severe limits to such investment.

The differential impact of inflation on individuals and groups is governed by two factors: (a) Ability to forecast correctly the course of inflation and, (b) Ability to adjust economic behaviour accordingly. This accounts for the inequities of inflation. It is to be noted that the more people act correctly on both counts the more rapid the course of inflation. The older people who have fixed price assets lose. Owners of property other than money, in particular owners of house property and land, gain unless very severe and effective controls exist. Most of the older people lose because they are of course not in this class.

Moreover, inflation assumes various degrees of intensity, ranging from "creeping", "trotting", "galloping" to "run-away" or "hyper" inflation. Clear distinctions of these various degrees of inflation are lacking. Fairly regular and uniform price level increases of less than 1 per cent per quarter that is just over 4 per cent a year, are obviously easier to cope with than increases, at the other extreme, of 50 per cent or more a month. "Hyper-inflation" of the latter degree of intensity* is characterised by the astronomic rates at which money and prices increase before the final collapse of a currency and by a flight from money. In "creeping" inflation there is more likely to be a buyers' boycott than a rush to buy early to beat the price rises. Only, most pensioners have not much chance of joining in such boycotts. A fixed (not indexed) pension would lose, at a rate of creeping inflation of 4 per cent per annum, 42 per cent of its purchasing power in 14 years, the average period for which pensioners draw pensions in many countries. Assuming a geometric rise of 8 per cent it would lose 66 per cent.**

Somewhere in the middle lies the inflation of 12 to 15 per cent a year*** which was the rate prevailing in a number of countries of Europe in 1973.****

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* This is the definition of "hyperinflation" suggested by Cagan, P.: "The Monetary Dynamics of Hyperinflation", in Friedman, M.(ed.): Studies in the Quantity Theory of Money. University of Chicago Press, 1956. 25-117.

** Even "creeping", continuous depreciation of money is highly anti-social in its effects and may amount to what a leading banker has rather somberly described as the "euthanasia of pensioners" who, as he put it, "are rarely remembered to-day because the fashion is to be 'young' and 'dynamic'". Even in creeping inflation the interest of pensioners' savings is nullified. It is none the less taxed. Their capital diminishes also. Banks are unable to compensate them by higher interest rates because the banks would then have to increase "active" interest rates also.

Nor can private assurance save the pensioner. The point can be illustrated by an example based on the relatively moderate rate of inflation in Switzerland. A capital sum of Sw.Fr. 50,000 invested at 5 per cent would yield, with interest compounded, a sum of Sw.Fr. 81,445, after 10 years. Assuming an average tax on capital and on interest - which might vary slightly according to individual circumstances - of Sw.Fr. 850 a year, the pensioner would pay Sw.Fr. 8,500 in tax during the 10-year period. Assuming a rate of inflation of 6.5 per cent a year, the real value of the original capital plus interests would be diminished by Sw.Fr. 38,035. Thus the pensioner's savings of Sw.Fr. 50,000 would be reduced, after 10 years, to Sw.Fr. 34,910 in real terms. (A. Schaefer, President, Union Bank of Switzerland, at that Bank's Annual Meeting in March 1973.)

*** The rate of inflation is commonly measured by the official index of consumer prices. The inverse of this is the purchasing power of money. Thus if the index of retail prices increases from 100 to 107.5 purchasing power of money decreases from 100 to 93, i.e. by 100 divided by 107.5. The rate of decline of purchasing power of money is thus 7 per cent.

**** In Japan, the rate at the end of December 1973 reached a level corresponding to an annual rate of 30 per cent.

To illustrate the point: at a rate of 15 per cent per annum, prices double in less than five years, multiply by sixteen in twenty years and multiply by nearly 18,000 in a seventy-year human life time. Another example to illustrate the same point might be a house expected to last for seventy years. Such a house bought in 1974 at, let us say, 10,000 units of a given currency of money would be worth 180,000,000 units of the same currency minus depreciation, at the end of its life, which is another way of saying that it was bought to-day at a price of 0.57 money units in that currency of the year 2044. This begins to look like hyperinflation. But it is not quite that.

During the century before 1914 price movements in the main industrial societies of the time followed a pattern roughly similar to each other, upwards and downwards. Periods of inflation and deflation generally cancelled out in the industrialised world and price levels were thought of as basically stable in the long run. There was general inflation only during the last twenty years of that period, and then only at no more than 20 per cent for the whole period. Major inflation occurred only after wars, the Franco-Prussian war of 1870 and the American Civil War in the 1860s.

Hyperinflation followed in the wake of the two world wars, especially in Central and Eastern Europe.* As a consequence of productive capacity destroyed in war, obligations to pay reparations, etc, some governments of defeated countries resorted to printing unrestricted money.* It is significant also that others did not. Loss of confidence in paper money without backing resulted in astronomic figures of prices for every-day necessities, in cases of hyperinflation which have been studied. Just before the first Germany hyperinflation ended on 20 November 1923, when the new Rentenmark was established by striking 1,000,000,000,000 (one billion) off the old paper Mark, wages were paid three times a day, prices rose hourly. A kilo of bread cost 470,000,000,000 Marks, a kilo of pork 5,200,000,000,000 Marks, an egg 320,000,000,000 Marks; postage on a letter had been 120 Marks in July. It rose to 5,000,000,000 Marks by November when gold cover for the new Mark was obtained by means of the Dawes loan. The issue of new paper money was again brought under strict control and linked to the Central Bank's gold reserves. The new Mark was given the psychologically important exchange value of RM. 4.20 to the American dollar which it had had in 1914. But meanwhile pensioners' savings were wiped out. A widow who had been left the then considerable sum of 200,000 Marks, a fortune in 1919 at the end of the war, found herself penniless by 1923. The life savings of entire classes of the population became simply valueless in a few months. Those who had invested in government bonds lost 30,000 million Marks by that inflation.

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* The traumatic experience has been studied chiefly in economic terms. An extensive literature exists on the German hyperinflation (August 1922 - November 1923). Cf., e.g., Muthesius, V.: *Augenzeuge von drei Inflationen.* Frankfurt, Knapp, 1973; *and*, Hielscher, E.: *Das Jahrhundert der Inflationen in Deutschland.* Munich, Olzog, 1968.

Useful comparative data are given for the following seven instances by P. Cagan, op. cit. (The approximate beginning and end of the hyperinflation, and the ratio of prices in the final month to prices at the beginning are given in brackets.) Austria (October 1921 - August 1922; 70); Germany (August 1922 - November 1923; 1.02×10^{10}); Greece (November 1943 - November 1944; 4.7×10^{8}); Hungary (March 1923 - February 1924; 44; *and* August 1945 - July 1946; 3.81×10^{27}); Poland (January 1923 - January 1924; 699) and U.S.S.R. (December 1921 - January 1924; 1.24×10^{5}). At the time when Cagan undertook this comparative study he found that these were the only instances of hyperinflation for which monthly indices of prices were then available. It will be noted that the average length of these seven instances of hyperinflation was fourteen months if we take the beginning of hyperinflation as the month when the rate of price increases reaches 41 % which, compounded continuously equals a rate of 50 % per month, compounded monthly.

In hyperinflation, the gainers are the wealthy and quick-witted who have, or can borrow, money to switch cash without delay into appreciating property unlikely to be confiscated by the government or subjected to price control. The losers are the simple folk who have a deficit on net income below rising prices and who have to draw on old savings they have kept in non-appreciating form. Honest men paying regular premiums in (good) money to insurers promising to pay (bad) money to the insured's widows years later: they are the losers. Even the shortened time lags in some pension adjustment arrangements mentioned in Chapter 5, can become a disaster for pensioners, in run-away inflation.

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* In Germany, in the summer of 1923, thirty paper mills and twenty-three printing firms worked three shifts continually to produce paper notes required for cash payments. New bank notes circulated more and more rapidly, as everyone tried as quickly as possible to be rid of them and convert them into something needed for immediate consumption or something that could keep its value. Local authorities and other public bodies issued their own notes at astronomically increasing denominations of equally rapidly decreasing value. On one occasion when there was a brief strike at a printer's, the local authority stamped extra 000s on their bank notes.

Small businesses, sometimes owned by older people, are driven into bankruptcy or sold at distress prices as hyperinflation gathers momentum. The old who have savings in rapidly depreciating money are the worst sufferers.

Hyperinflation of this kind became possible only in modern times when paper certificates, later described as "money", began to be issued by money changers and goldsmiths for coins of intrinsic value.* This happened, still on a relatively small scale, only in the eighteenth century. An early instance of worthless paper money being issued without backing is explained by gambling and adventure rather than fraud. A certain John Law, a Scot, Minister of Finance of the Regent Philip of Orleans, having founded a reputable bank at Paris in 1716, financed transactions in Louisiana and India. When confidence in his paper money waned the holders of the banknotes found themselves penniless. The experience of the "Assignats" issued in the French Revolution, which depreciated by 99 per cent between 1789 and 1796, might have been a warning for later hyperinflation.

Peel's Bank Act of 1844, in England, showed that a modern banking and credit system using paper money could function perfectly well, provided the quantity of money and credit was strictly controlled and confidence maintained. For many years free convertibility of promissory notes and of coins of only nominal value - and also of credit - seemed, in the view of many, to serve this purpose well: then a fixed ratio of gold and similar assets held by the central bank to cover its fiduciary issue. Later still, first the American dollar and then "Special Drawing Rights" were introduced as stabilisers. But in the absence of a supernational authority, their success in restraining world-wide inflation was limited.

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* The names of to-day's currencies recall the commodity origins of money. The lira introduced by Charlemagne was a pound of silver. The pound, a unit used in various countries originated at about the same period, 750 A.D., when silver coins known as "sterlings" were issued in the Saxon Kingdom - 240 of them minted from a pound of silver. The Thaler, Dollar, Ruble have similar origins. The Florentine Fiorino (florin) coined from 1252 was a piece of pure gold and acquired increasing currency. More gold became available when Europeans discovered the new world. The Drachma originally referred to a handful (of nails). The commodity origins of money can be traced even further back. All kinds of objects have served as money at one time or another: salt, slaves, oxen (whence the word pecuniary). In contrast to this commodity origin of money words such as "note" and "bill" relate to debt and mark the transition from predominantly commodity money to debt money. The bank note was a promise to pay. Massachusetts has the distinction of being the first state in the world to issue paper money. Yet the necessary institutions for the exercise of this power did not exist at the time of the war of 1812.

But the hyperinflations were not deliberately engineered - useful though they turned out to be for certain classes of landowners in debt. The causes and mechanisms were only imperfectly understood even by bankers. It is recorded that the governor of the German central bank, in 1922, said he would postpone for a while buying himself a new suit of clothes until "prices settle down again". He expressed concern later in the same year that there did "not seem to be enough cash about". Run-away inflation after the first world war was followed by deflation and widespread unemployment and misery in the inter-war years. This continued almost until the rearmament boom just before the second war restored some sort of equilibrium.

Although new instances of hyperinflation occurred again after the second world war the experience of savage deflation - which hit the old, and the poor generally, as well as the young who needed work and income - was not repeated on any large scale after the second war. Moreover, high proportions of immigrant workers in most of the world's richer countries provided a cushion against unemployment, for nationals of these countries.

But a new type of hyperinflation has appeared in more recent years, known as the "Latin American model". Brazil provides an instance among several.* Until the late '50s prices had risen by between 10 and 20 per cent a year. Then, as a result of vast government spending and perhaps also of lack of economic and social expertise, the cost of living went up at a rate of over 80 per cent per annum by 1964. Eventually the military took over and cost of living increases declined again to the range of a mere 13 to 18 per cent per annum. But the Brazilians found a way: "monetary correction" to live with hyperinflation. Amounts were paid at the end of the year to make up for income lost as a result of the fall of the purchasing power of the cruzeiro. A range of different indices were published daily to guide financial transactions of all kinds. In addition, the "crawling peg" system aimed at adjusting the currency's external value every month or six weeks.

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* For many of the countries often referred to as "developing" the statistical data are lacking.

The fact that deflation did not recur on any large scale after the second world war* may be ascribed partly to a better understanding among economists and bankers of the mechanisms and attitudes of mind producing monetary derangement. Inflation had begun to be studied methodically, largely under the influence of Keynes. Three types of explanations of movements of price levels were developed.

First came demand theories. They placed emphasis on the demand for non-monetary assets and real income. These were based mainly on the quantity theory of money and include Keynes' emphasis on fiscal correctives, public expenditure and taxation to keep the price level stable. Next came the cost theories, influenced by the post-war primary objective of maintaining full employment. These theories - which came into vogue from the period of the Korean war, argued that the trend to inflation came mainly from the supply or cost side. Policies recommended to keep inflation from turning into hyperinflation consisted mainly of restraints on wage levels in order to maintain stable prices and incomes. Thirdly, there were the structural theories propounded by Prebisch and others, arguing that monetary and fiscal controls retarded the very changes needed for an economy's growth.

Perhaps the most important of these theories of the causation of inflation were those of the first type which are inspired mainly by Keynes' major work which aimed at providing a general theory of how an economy functioned. Keynes argued that moderate changes in the price level were inflationary or deflationary independently of changes in money supply,and emphasised the importance of decisionsto consume or invest out of income. Taxation came to be seen as a major instrument of economic and also social policy - a point not without importance for the "tax credit" and "negative income tax" proposals developed much later.**

In recent years it has been argued that monetary policy should be subordinate to budgetary policy. A group of Cambridge economists, notably R.R. Neild, disagree with Keynes that budgetary policy could determine the level of employment and the exchange rate, to regulate the foreign balance. Their argument is that budgetary policy is best applied to determine the foreign balance and the exchange rate which, in turn, will determine the level of activity. This rests on the contention that changes of interest rates (which are the operative mechanisms of budgetary policy) cannot correct total demand by encouraging saving, etc., as well as taxes or government spending can. The Cambridge group hold that excessive budget deficits cannot be corrected by draconian rises in interest rates. The latter tend rather to inhibit investment. Huge budget deficits are accompanied by rapid increases in money supply. Therefore both, budgetary measures and the exchange rate, should be used to regulate the foreign balance and the level of employment: not monetary policy because it would not reduce prices but rather quantities demanded.

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* Post-war deflations were deflations only in the sense that rises of prices and wages slowed down as output and employment declined.

** These are referred to on pp. 164-177, below.

The problem of countering inflation is how to ensure that easing of demand leads to an easing of prices rather than a fall in employment. A lower level of employment, according to much contemporary economic thinking, does not necessarily lead to slower increases in wages but is apt to lead to unacceptable social costs. This argument points in the direction of prices and incomes policies, fairer taxation and better social policies - all of which depend in the first instance on a "proper budgetary policy", according to a school of thought that appears to be gaining ground.

In the 'fifties and 'sixties, inflation had come to be seen less as the main problem. Attention turned more to developing policies to ensure high levels of employment. Hence a moderate level of inflation,rather than its complete absence, came to be regarded as "normal". Deflationary policies came to be seen as leading to reduced output and employment rather than prices. Business opposed price cutting and organised labour wage reductions. Hence inflationary policies met little resistance.*

Moderate price increases, it was widely agreed, stimulated output and employment when an economy was producing below capacity. If under-employment was indeed the main danger and economic growth the aim it seemed logical to tolerate continuous rises of the price level. Suitable arrangements for rising pensions for the retired were an acceptable complement of such policies so long as inflation was at a tolerably low, "creeping" level of, say, three per cent a year and perhaps even at a "trotting" pace. At a "galloping" rate it began to become less sure. That accelerating inflation was a risk and might destroy a policy's effectiveness was reluctantly conceded as a corollary.*

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* "When a few large firms bargain with a strong union conflict can be avoided by acceding to union demands. And there is not much incentive to resist. There is a common understanding among the firms that all will raise their prices to compensate for such settlements. If demand is strong enough to keep the economy near full employment it will be strong enough to make such price increases feasible ... The price increases in turn set in motion demands for further wage increases. Thus the familiar upward spiral of wages and price increases." (J.K. Galbraith in his Reith Lectures, 1966.)

For wages of people still at work, cost of living indexing became common in a number of countries among powerful unions and employers. Other countries moved away from such arrangements. Opinion was divided among specialists whether such indexing tended to intensify the rate of inflation or not. Much depended, clearly, on the way the cost of living clauses were designed. If, for instance, tax increases were not included in "cost of living" or, if a delay of adjustment was longer, the effect on the inflationary spiral proved to be delayed thereby. Finland, where virtually everything, including government bonds was indexed, had shown over a recent eight-year period one of the fastest cost of living increases in the "developed" world. Indexing was abandoned by agreement with the unions in return for price control, and wage increases were related to productivity increases. But Belgium, where 90 per cent of all workers were covered by cost of living clauses, showed relatively less loss in the purchasing power of money than most other countries during the same period.

But if moderate and regular inflation was accepted as the permanently "normal" state of the economy it left open the question of what was a safe level at which "creeping" inflation could still be restrained from accelerating to a "trotting" and "galloping" pace. And, more important - how would it be possible to prevent it from deteriorating sooner or later into run-away inflation that would destroy the entire social system and render indexing of pensions and other social security payments ineffective?

It was argued that permanent inflation needed to be accepted in the contemporary world because it differed from classical inflation. The latter, it was said, was an excess of money over production.* It could be either "cyclical" or "structural". If the former it was self correcting, so it was argued; if the latter, budgetary austerity and currency adjustments were all that was needed to restore equilibrium and stable prices.

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* "Better 5 per cent inflation than 5 per cent unemployment", was the reply of a minister of finance when asked about the risks incurred by letting the cost of living rise.

The new inflation was seen as differing from that of the classical type mainly in that it was international, i.e. common to all industrial countries. Equally, it was argued that it must be accepted as permanent because classical anti-inflationary measures, such as restricting the volume of money, raising interest rates, etc., would only retard economic growth but not rises in the price level. Measures of the "classical" type might, according to this school of thought, even accelerate inflation. Modern market economies could no longer be expected to safeguard price stability. Not the least of the arguments used was that such economies were characterised by a large service sector where rises in productivity were much slower - which was a way of saying that what economists lump together as "service sector" required increasing amounts of money and growing numbers of people but did not produce a corresponding increase in "wealth".

New methods of income determination for people working tended to lower resistance, as we have observed, to increases in remuneration on the part of those paying wages and salaries: the cost being shifted, by way of higher sales prices, to the consumer or the public purse.** This may mean - depending on systems of subsidies, taxation and social provision - that those most adversely affected would be people no longer working, that is pensioners and also people in agriculture and the so-called "self"-employed, many of them already on much lower incomes than many in manufacturing industries.

If then classical anti-inflationary measures were both ineffective and harmful, was inflation to be left uncontrolled? The answer given was, generally, not. But new measures proposed were usually designed to retard inflation, not to produce price stability.

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* Cf., e.g. Charpy, J.: "L'inflation permanente", in "Revue du Marché Commun" (Paris) No. 147 (October 1971) 365-377.

** Illustrations on this subject have a way of dating quickly. But historically, a well documented account deserves to be looked at: Simkin, G.F.: "Inflation in Australia and New Zealand: 1953-71", in "Economic Record" (Melbourne) 48, 124 (December 1972) 465-482.

This poses a dilemma. Fortunately dilemmas look less awkward when quantities are introduced. First some data referring to inflation in major industrial countries, members of the Organisation for Economic Cooperation and Development, in the early '70s* - notwithstanding reservations about indices, referred to earlier in this chapter, and some reluctance to cite figures that were recent at the time of writing but are liable to need much modification soon afterwards.

They show that, over the period 1970-1973, consumer prices had risen in all twenty-four countries by over 20 per cent i.e. at a rate of somewhat less than 7 per cent a year**; in the Irish Republic and the United Kingdom by about 40 per cent. As a rough indication such figures give a measure of the rate of inflation affecting the retired. Figures for shorter periods bear out that the price increases of consumer goods are mainly due to rises in food retail prices which were particularly steep during that period in Ireland and Great Britain, especially for butter and beef in 1972 and for eggs, bread, poultry, pork and bacon in the following year. The system of "deficiency payments" in these countries (i.e. making up the difference between a guaranteed price and the average market price) had made food cheaper to the consumer than the system of price supports used in the other countries of the old European Economic Communities, where the increased cost of food production was passed on more directly to the consumer. By the spring of 1973, the rate of inflation was in none of these countries less than 7 per cent a year***. A rather longer though slightly earlier period is covered in Table 6:

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* Such data are published regularly for the twenty-four countries, members of the Organisation for Economic Cooperation and Development, and for some others in that organisation's publication "Main Economic Indicators", (Paris), monthly. Information is published also by the International Monetary Fund for a wider range of countries.

** It will be seen that these percentage increases are higher than those given in Table 6 below. They cover the second half of 1972 and the whole of 1973 and also a much larger number of countries. For details the reader is referred to the sources indicated above and below.

*** "Economist" (London) 247, 6772 (9 June 1973) 64, and "Economist", 250, 6811 (9 March 1974) 70-71. For a fuller statement of the problems cf. "Economist", 245, 6743 (18 November 1972) 76.

Table 6

Increases in Consumer Prices *

Nine Countries of the
European Economic Community

Country	per cent. increase per annum 1963-71 (average)	per cent. increase per annum 1971-72 (Aug.'71-July '72)
Ireland	5.9	8.9
Netherlands	5.4	7.2
United Kingdom	5.0	6.6
Denmark	6.1	6.5
France	4.2	6.1
Italy	3.7	6.0
German Fed. Rep.	3.0	5.7
Luxembourg	3.2	5.7
Belgium	3.7	5.4

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* Sources: Organisation for Economic Co-operation and Development, "Main Economic Indicators" (monthly publication); cf. also estimates of National Institute of Economic and Social Research, London, "Quarterly Review", for more recent estimates.

It will be noticed that the general trend in all these countries was in the same direction. Inflation as measured in this way accelerated more in all these countries in 1971/72 than in the previous nine-year period.*

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* In a speech entitled "Is Inflation Necessary?", Mr. R. Barre, a former Vice-Chairman of the Commission of the European Economic Communities, noted early in 1973, the increase in the rate of inflation from about 5 to about 8 per cent a year and argued that only international action could bring it under control.

By the spring of 1974 intensity of inflation ranged (in ascending order) from 6 to 8 per cent a year in Luxembourg (6 per cent), Belgium, Sweden, Holland, Federal Germany, France and Norway; from 8 to 10 per cent in Austria, the United States and Canada; from 10 to 15 per cent in Great Britain, Switzerland, Denmark, Italy, Ireland and Spain; 15 per cent and upwards in Finland, Japan, Turkey, Portugal, to 30.4 per cent in Greece. We may assume that a part, though hardly anywhere more than one half of the increase may have been due to rising world food and animal feeding stuffs prices, the latter being the livestock farmers' raw materials, and some proportion to rising prices of crude oil. In some countries much bottled-up inflation was not yet reflected in rising retail prices in the spring of 1974. On the other hand, there was some comfort in the fact that hyperinflation in a few countries showed signs of being reversible. In Iceland, Spain, Israel, India and Peru, hyperinflation had been in the danger zone of 15 to 20 per cent a year at some time or other during the decade 1960-1970, but was brought back again to a lower level of intensity during the period 1970-1973. True, it did not necessarily stay lower. But falls showed at any rate that movement could be in both directions even during a highly inflationary period.

In some of the world's poorer countries where income depended on raw material prices, it might be assumed that rising prices of these exports might bring greater prosperity. This was not necessarily so because extra earnings from this source were cancelled by rapidly rising prices for equipment and machinery which they were importing in order to industrialise.

A general idea of the inflationary trend for the twenty-year period 1952-1973 is conveyed in diagram 7.

No single currency or country would be typical of all others. But if a picture larger than that conveyed in Diagram 7 were constructed it would probably show somewhat similar trends.* Devaluations, failures, and occasionally limited successes, with (phases of) prices and incomes policies, "credit squeezes" and restrictions, new systems of taxing, such as value-added-tax, change the shape of the line in Diagram 7, but probably not very markedly for other countries of the "western" industrialised world. The downward slope of the line after 1970 is the important feature of this diagram.**

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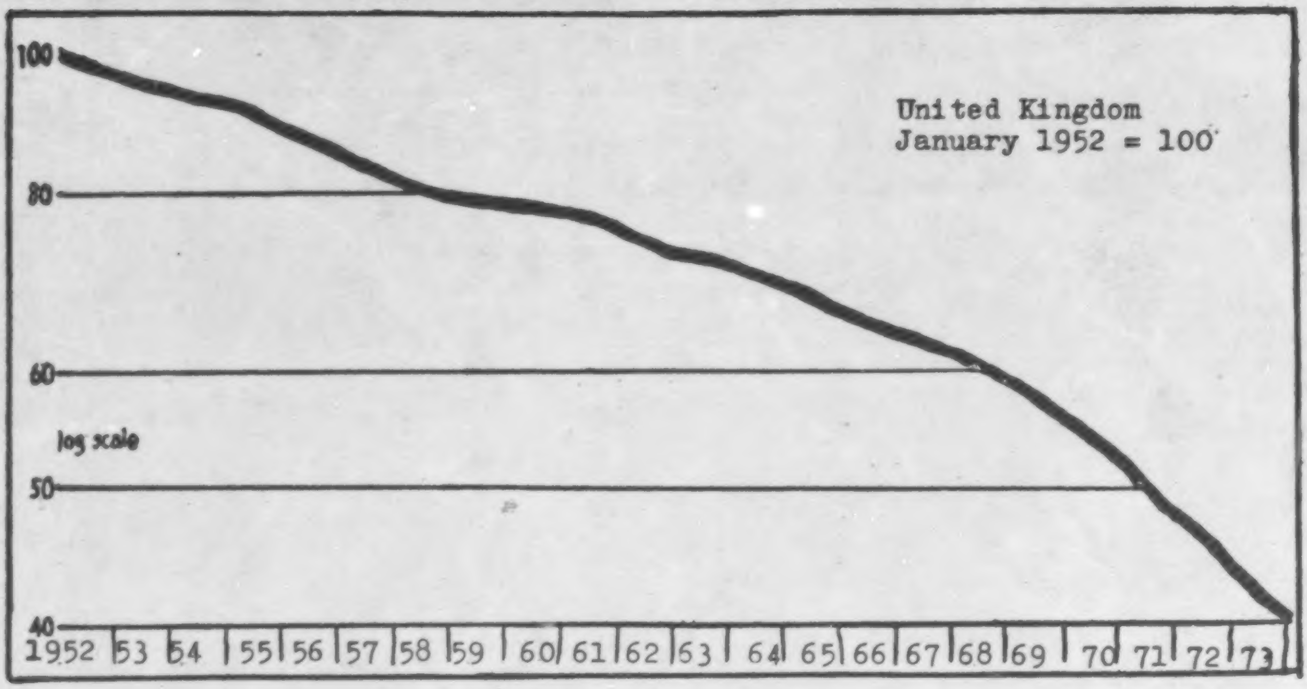
* An article in the "Monthly Bulletin" of the First National City Bank (New York) in September 1973 showed that in the major industrialised countries monetary depreciation in the first half of 1973 was 38 per cent greater than the average for the preceding five-year period. In the less industrialised countries in their list it was 79 per cent higher.

Diagram 7

Inflation Measured by Retail Prices Index *



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* Source: "Department of Employment Gazette" (London)

Note: The diagram shows the domestic purchasing power of one currency, the pound sterling, as measured by the retail prices index. This was in 1973 only 40 per cent. of what it had been in 1952. The gradual acceleration of inflation during the period shown was fairly continuous. The diagram shows the interruption of the trend in 1959 and 1960, partly due to lower import prices. Deflationary policies in 1966 and 1967 are hardly visible. Between 1968 and 1970 inflation was at a trot, but in the three following years it threatened to become a gallop.

Rising prices of imported food can directly affect a country's own price stability and carry the infection of inflation from one country to another. But this is certainly not the whole of the explanation of what has perhaps been somewhat dramatised by the expression "price explosion".

Some of the explanation must lie in changes in systems of taxation. Shares in the national cake are differently distributed. Systems of taxation may aggravate or correct this. In Holland, for instance, value-added-tax was introduced under conditions of excess demand in 1969; it may account, together with a number of other factors, for the high rate of price rises. In Ireland the explanation, or at least part of it, may be the low level of prices which had prevailed earlier.

The rate of inflation has changed in the various countries in the intervening period between the time to which the data quoted refer and the time of writing. But the general trend is one of accelerating inflation. Lack of confidence that inflation would be restrained and lack of faith in existing currencies was reflected in dramatic rises in the price of gold in the free market internationally and by steep increases in the cost of housing and of many raw materials..

But there are isolated instances where there is more direct evidence of what a very wide and representative cross-section of people thought of the possibility of controlling inflation. One of these is a survey of a statistically representative sample of people in Great Britain (that is, the United Kingdom minus Northern Ireland), a country which had never undergone the traumatic experience of hyperinflation. The survey was carried out in January 1974 and is compared with another undertaken seven years earlier.

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* For the period from mid-1968 to early 1973 Barclays Press and Information Service: "International Prices and Incomes Policies", in "Economist" (London) 248, 6788 (5 October 1973) 88-89, attempted to correlate, in a series of diagrams, inflation rates, as measured by consumer prices, with various policies for restraining increases of prices and wages (expressed in terms of hourly earnings) in five countries: Great Britain, Holland, Sweden, France and the United States. The authors arrived at the guarded conclusion that such policies could have a considerable effect under certain conditions, but that the relationships were complex.

The results are analysed by age groups, socio-economic classes, men, women and other categories of people. Many questions were asked about incomes and prices, and about ways and hopes of success for keeping down prices. One question was, "Do you in fact believe that any government can keep prices steady in this country ?" Out of the total sample (taken in January 1974) 68 per cent. did not believe that any government could keep prices steady. Just over one in five, 22 per cent, thought it was possible, and 10 per cent. were classified as "don't know". In the age group of sixty-five and over, those who gave a negative answer constituted 62 per cent., those who replied in the affirmative 22 per cent, and the "don't knows" a significantly higher 16 per cent. Women showed a somewhat lower percentage for both yes and no, and a substantially higher proportion of undecided answers. Another striking result of this survey * was that the younger the people the more sceptical they were about any government being able to call a halt to inflation.

Whether the degree of inflation will reach what was earlier described as "hyperinflation" is ultimately a question of whether present inflation represents a crisis of confidence in society itself. It is essentially a psychological question, whether society will degenerate into a state that Thomas Hobbes in his Leviathan (1651) described as one "... wherein men live without other security than what their own strength shall furnish them withal."

All these elements are not reassuring for any long term and well thought out social policies and for policies concerning the ageing people in particular. But we do well to be wary. Extrapolation of prevalent trends into the future has made many economists and statisticians look foolish. A similar point has been made earlier about demographic extrapolations. It applies with even greater force to economic and financial prediction.

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* Fosh, Patricia and Jackson, D.: "Pay Policy and Inflation: What Britain Thinks", in: "New Society" (London) 27, 592 (7 February 1974) 311-317. The full tabulations are to be found in the British Social Science Research Council's Archives.

In summing up the preceding reflections, it would seem that the causes of inflation and its effects on society are complex phenomena which vary at different stages of a country's social and economic development and, to a lesser degree, among roughly similar types of countries at the same point in time. Understanding of the inter-related issues is far from complete. The problem as it manifests itself in industrially complex - sometimes referred to as overdeveloped countries today is, inflation at a rate too high to be acceptable, well past the rate of creeping inflation of perhaps five per cent. a year, but not as yet at a point where all the mechanisms of adjustment for social provision are inadequate to cope and where inflation threatens therefore the entire fabric of these societies.

Among the causes of inflation are those which are largely domestic and those which are primarily external. Among the first are demand pressures associated with full, or nearly full employment, expectations of rising incomes on the part of the population of working age, rising, but very unevenly distributed labour costs and higher taxes of a type that can be passed on to the ultimate consumer. Among the external causes are rising costs of imports, in some cases, and to varying degrees attributable to effective devaluation of the home country's currency and disequilibria of balance of payments.

Governments recognise that it is necessary to act to act to control inflation. For the elderly and old people - who depend to any large degree on fixed incomes, or on unsatisfactorily index-related incomes - present rates of price increases are alarming.

In considering cures - or at least measures to restrain the intensity of inflation - modern government is faced with a number of policy goals among which restraint of inflation is only one, alongside a low rate of unemployment and an acceptable rate of general economic growth.

The cures for inflation too may be divided into those which are primarily domestic and those which are essentially external and therefore call for inter- or supernational agreements and measures to solve them.

Foremost among the former are a wide range of statutory and voluntary policies aiming at restraining inordinate increases of incomes on the part of particular groups of the population, groups living already at levels well above average. Then there are - still on the domestic side - policies designed for increasing productivity and policies the purpose of which is to restrain excessive demand by means of monetary and fiscal measures. But let us note that behind this seemingly innocuous and highly technical sounding phrase "restrain excessive demand" lurks the stark reality that this can include public expenditures on health-related and other services essential and perhaps even vital to the retired population. *

Among the external cures are policies to reduce the cost of imports, including currency manipulation, such as upward revaluation to cheapen imports, or devaluation or "floating" to boost exports. Commonest

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* The point is made very forcefully by Dr. P. Draper of the Department of Community Medicine at Guy's Hospital in London: "... As the tales of economic woe are published I write to plead for resistance to the Treasury's and the gnomes'favourite nostrum at such times - 'Cut back on public expenditure' ... It is vital for the Health Service not to be pushed right out of the queue. The point is that the work to be done increases, and the National Health Service budget has in fact been devalued by the particular kind of inflation we have had by something like two hundred and fifty million pounds or about 10 %. While reasonable economies can always be made in any organisation - this is simply not the time for Health Service economies. The very principle of the National Health Service is now at stake, because over half a million members of the health team are grossly underpaid. Before anyone - gnome or Minister - decides that the National Health Service will simply have to wait, can we please have a thorough public debate about sources of extra money for all our public services ? - the essentials rather than the luxuries of a civilised society ... If the various money 'experts' still maintain that help cannot be given, and urgently - can we examine other possibilities - for instance that the ages of compulsory retirement should be raised or made more flexible, thus reducing pension commitments and what is often unwanted redundancy, compulsory degradation ?"
"Financial Times" (London) 13 March 1974, page 2..

perhaps among policies to restrain inflation have been price and wage control measures.[*] Many of these have adversely affected public expenditure in general and services important to the poorer people and the old and retired in particular. Such analyses as have been undertaken of measures to retard increases in prices and incomes had not shown any great measure of success, at least not until 1972 and 1973, the last years for which records were available at the time of of writing.[**]

In a very cautiously worded statement the Organisation for Economic Cooperation and Development commented in December 1973,

> " ... Different views are held by governments of member countries as to the utility of prices and wages policies in the longer run. It is in fact difficult to point to cases of lasting and substantial success where these policies have been applied. At the same time there is an important body of opinion which feels that it may only be such policies which offer some hope of bringing inflation under control without slowing down economic growth to an unacceptable extent ... if real growth is adversely affected conflicts over the distribution of available incomes may increase ..."[***]

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[*] Speaking on fixing maximum wages and prices, the "guide posts" and "price freezes", J.K. Galbraith observed in his Reith lectures in 1966 that they stood "... very much in relation to modern economic policy as does prostitution to the theory of business management. Both are widely recognised to exist and to serve a function. But no one wants to admit their permanent need. They are not aspects of the good society. And certainly no one wishes to study them in order to see how they could be made more efficient, or more serviceable to the general public. It would be well were we to recognise that wage and price fixing is indispensable in the planned economy. The next step would be to learn how this wage and price fixing could be made more effective and more equitable ..." Experience has accumulated since Galbraith made this provocative statement, but much further study remains to be done.

[**] Cf., e.g., "Experimente mit Lohn- und Preis-stops", in, "Arbeit und Sozialpolitik" (Baden-Baden) 27, 1 (January 1973) 11. In that article policies with these objectives are analysed for eight countries, the United States, the Netherlands, Sweden, Norway, France, Italy, Belgium and Great Britain. Cf. also, Barclays Press and Information Service: "Prices and Incomes Policies", a source already referred to above.

[***] "Inflation", in, "O.E.C.D. Observer" (Paris) No. 67 (Dec. 1973) 21

Hopes in economic growth, which persist as a kind of religion, a counter to inflation, were largely disappointed in recent years.

Next to be considered are fiscal expedients to aid redistribution of incomes among age groups.

The preceding reflections on the nature and impact of the decline in the purchasing power of money show the tendency for existing inequality to be widened by acute inflation. Widespread public reactions to the aggravation of inflation demonstrate that "nothing stings more deeply than the loss of money", as Livy observed eighteen centuries ago. Although "money" may "give a man thirty years more of dignity", as an old Chinese saying has it, to-day's and tomorrow's pensioners are painfully aware that what they need is real money - not depreciating coinage and paper - and adequately staffed and financed services, to keep pensioners healthy, tolerably housed and supplied with at least a minimum of amenities.

In addition to the various means of social provision discussed in Chapter 5, designed for the purpose of giving the retired a tolerable share in national wealth, systems of (progressive personal income) taxation can furnish additional means to combat the glaring inequalities produced by inflation. As long as inflation does not escape all control the two approaches of social provision and taxation together may succeed in preventing pensioners' conditions of life from deteriorating.

Quite outside systems of social provision, and altogether separately from them, an armory of economic and fiscal concepts has been amassed in recent decades, capable of being used for purposes similar to those of social security but, in most countries, administered by quite separate authorities and, originally, according to entirely different principles and criteria.

A number of specific fiscal measures have been developed to redress inequities from which the retired suffer - and more so in times of inflation: some already in operation, others under consideration.

In order to see in perspective proposals now being discussed, it seems useful to look first at the very different purposes which taxation and social provision for ageing served originally in many countries and then at the way in which these purposes converged subsequently. This may make it easier to understand why a certain overlap of fiscal and social policies for ageing has led a number of administrators and others concerned with these two kinds of transfers to call for harmonising fiscal and social provision of most kinds.

Policies proposed to harmonise or even coalesce the two systems, it must be recognised, are motivated not primarily by concern for the retired or ageing but more generally by administrative convenience or broader social considerations. It is therefore worth asking to what extent the idea of a joint fiscal and social security approach may serve to meet the needs of the ageing population.

Lastly, there are in the main two specific proposals which are worth examining. Both may be of historical and theoretical interest. Neither has been put into operation; nor is either likely to be in the form proposed. Each depends on definitions and figures applicable only in the context of the country to which it was intended to apply. Each depends also on monetary estimates which have lost much of their meaning as a result of inflationary changes that have occurred since the proposals were made. It seems none the less worth asking what features, if any, these proposals contain that may raise questions of principle of wider and more lasting interest.

It is not surprising that taxation should have evolved along lines quite distinct from those of social provision. Taxation has essentially two functions, one positive and the other negative. Its positive function is to finance the various activities of government and the rest of the public sector of the economy. Alongside this, taxation has the negative function of reducing the taxpayers' spending potential. It is this negative function of taxation which inflation brings into prominence. But implicit in it is also the use of taxes for purposes of social equity.

In the borderland between taxation and social security we find ourselves confronted by an entirely different vocabulary. Some of the rather esoteric terms used in regard to taxation show, when compared with those of social provision, the same kind of reciprocal relationship as does "purchasing power of money" to "price level", concepts referred to in the preceding discussion.

The "pension" or social security "benefit" may appear in a new taxation vocabulary as "negative income tax", "reverse income tax", "social dividend" or "tax credit", terms by no means identical but all of them indicating payments by fiscal authorities to supersede social security benefits. Amounts paid out in the form of social security benefits to people because they are old or are poor approximate in the language of taxation, to "reliefs" and "allowances" on the taxpayer's return. "Fiscal drag" is referred to as a means of paying for benefits because it represents the extra amounts coming into the exchequer as the economy expands and tax payments increase. Right on the frontier between taxation and social security we encounter the "poverty trap" and the "claw back". The first indicates the amount the pensioner - a person known both to the tax collector and to the social security administrator - may lose in (social security income-tested) benefits as a result of only a small, marginal, increase in his income. The second stands for social security benefits and allowances which may be subject to income tax, i.e. "clawed back".

The point to notice is that until relatively recent times changes in social security systems and in taxation were made, in each system, without full realisation of repercussions in the other. Both were long regarded in many countries as quite separate aspects of government policy. Changes in social security policy for ageing were often proposed without full regard to their fiscal consequences. Changes in taxation often did not accord with the aims of social policy.

The picture should not be complicated unduly. But it must be noted that a number of quite distinct agencies of government are involved with incomes of the retired and poor: not only those concerned with pensions and other social security benefits, not only those responsible for assessing and collecting taxes for different levels of government - further complicated in states with a federal structure or local autonomy - but in addition the agencies responsible for the states' general fiscal, economic and financial policies. This raises a further problem of coordination of fiscal and monetary policies. If these are not in line with each other (however well coordinated fiscal and social security policies might be) there may be a conflict with monetary and financial policies pursued by a country's central bank.

For some considerable time past it has been an aim of many, in both taxation and social security, to reduce the inequalities of wealth and incomes, inequalities unjust in working life but more so in later years.*

The idea expressed in Rousseau's "Social Contract", two hundred years ago, that "... The nature of things tends continually towards the destruction of inequality...", inspired many to seek through social security to bring about a juster distribution of wealth and induced others to use the state's entirely separate machinery of taxation for a similar purpose. When Charles James Fox observed at about the same period as Rousseau that "... men are entitled to equal rights but to equal rights to unequal things...", he stated a truth which indicates the difficulty of satisfying similar needs in divergent ways. If the (wealthier) taxpayer has his taxable income base reduced by various exemptions, should he not in fairness, it is asked, have a counterpart in the poorer person below the tax threshold entitled to concessions of a corresponding kind?

Inequalities of income, their causes and possible ways of reducing them have long preoccupied social thinking.* Some have asked whether it is any longer true that unequal incomes are needed to create savings for economic growth. Others ask for evidence as to what size of income differentials are needed for efficiency. Others again argue that even such evidence, if it were produced, would have little relevance for incomes of the retired.

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* Whether these inequalities are being reduced or are increasing is a subject of widespread debate. Figures lend themselves to interpretation of different kinds, well illustrated in an article on the subject in the "Economist": "By 1971, the latest figures available, 18.6 million people owned the £ 112.7 billion of private wealth in this country; and the wealthiest 25 per cent (or 4.65 millions) of those 18.6 millions owned 72.1 per cent of the wealth ... you can ... compare those 18.6 millions wealth owners with the 19 million households in Britain ... [or] you [can] compare the 18.6 millions with the total population aged over 15, and say that 54 per cent of British adults do not own any wealth ... [or] ... by counting all the infant children ... you [can] say that 4.65 million people who own 72 per cent of the wealth are only 8 per cent of the population ..." "Economist" (London) 250, 6809 (23 February 1974) 83.

Since the disparities are aggravated by inflation, reconsideration of contradictions of fiscal and social measures becomes the more necessary. But at the same time great differences in methods of various countries in raising revenue by different forms of taxation render the subject the more difficult for international study. Taxation of all kinds taken together varies greatly between countries and over time.

For a fairly recent period it ranged from 11 per cent to 36 per cent - or from 19 per cent to 43 per cent - of gross national product in the richer countries, according to whether social security payments are included or not.**

Taxes on personal incomes as a proportion of total taxation varied even more widely. Some countries relied very much more on taxes on goods and services than others. It is only when there is a highly developed system of keeping accounts that personal income can be assessed and tax on it collected.***

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* Cf. e.g. Weintraub, S.(ed.): Income Inequality. Annals of the American Academy of Social and Political Science, 1974.

** "O.E.C.D. Observer" (Paris) No. 61 (1973) 16,f. (Averages for 1968-1970, for the states, members of the Organisation for Economic Cooperation and Development.)

*** Taxation on personal incomes is in the main a twentieth century development, dating from the first world war. The exceptions are few. The very first successful income tax is believed to be that levied by William Pitt in Britain in 1799, to finance the war with France. It was levied at a standard rate of 10 per cent. The tax was abolished three years later and was reimposed in 1803. It lasted until Waterloo. It was again revived in 1842 by Sir Robert Peel. Really "progressive" income tax dates only from 1907. Other exceptions to the general statement (that personal income taxation is mainly a twentieth century development) are a limited income tax in Belgium in 1828, one in a single Swiss Canton: Basel-Stadt, in 1840 (in other Swiss cantons income tax was not introduced until after the first world war and at the federal level in Switzerland only in 1940), Austria 1849, Italy 1864, New Zealand and Japan in the 1880s, Germany and the Netherlands in the 1890s. In the United States income tax was levied for three years during the civil war, then dropped. Attempts to reintroduce it failed until the 16th Constitutional Amendment legalised it in 1913. It came in to last, in a sharply progressive form, in 1918.

In poor countries where there is mass poverty and weak public administration and there is power in the hands of small wealthy groups of people, heavy taxation of any kind is in fact ruled out and income taxation virtually impossible. Taxation in such countries tends to be limited to import levies and export duties and perhaps commodity taxes. Added to these there is, perhaps here and there, an income tax at a low rate of an inheritance type. Tax avoidance may often be easier than in more developed systems. In the latter, an important distinction is drawn between tax evasion which is severely punishable and tax avoidance which is not.

The main secular trend in taxation has been a development from financial necessity, as a reason for financing government activities, to the use of taxation for policy objectives.

When this change has occurred we find taxes being used to allocate resources and serve social ends. Examples of this are taxes on liquor and tobacco as a means to discourage consumption; foods such as milk, bread, meat and certain essential household appliances being taxed less or exempted from tax to make them cheaper.

It is implicit in this that taxation may increase inequalities as well as reduce them. The former may occur also as a result of subsidies on essentials being lowered or withdrawn, and the price the pensioner pays in the shops thereby increased. The same effect is noticeable in inflation when tax is payable by some tax payers only at the end of the year - when the value of money may have fallen substantially, while others have income tax deducted immediately at the source when the value of money is still relatively much higher.

The distinction between direct and indirect taxes seems at first sight a useful and clear-cut one. It would seem that direct taxes are those where the taxpayer's legal liability cannot be shifted easily to other people such as customers or suppliers. Examples are death duty, taxes on property, poll tax and, most important, income tax. With indirect taxes, such as sales or value-added taxes, duties, licence fees, the legally responsible taxpayer finds it easier to pass on to others his obligation to pay. But in fact this dichotomy is not as good as it seems because the distinction is more one of degree than a sharp division.

The distinction is none the less valid in that the more a tax can be classified as a "direct" one the better it lends itself to being made "progressive", that is, usable for taking an increasing proportion of income in tax as incomes rise. Where this is done taxation is based on the ethical idea of "ability to pay" which has an affinity to principles of social security. Systems of taxation are never entirely neutral. They may be merely erratic, proportional, regressive or they may be progressive.

The more progressive they are the closer they come to being designed to reduce inequalities of wealth and income. Strict adherence to the principle of ability to pay would call for a monolithic tax structure, restricted to taxes on personal income only. Logically this would imply systematic negative taxation also. If a person with a modest income pays no tax, a person with an even smaller income should pay less than no tax, that is, receive a subsidy.

Subsidies of a more familiar kind in the form of guaranteed prices or markets, farm subsidies, licences which limit entry into an occupation, all have an element of social security. They are transfer payments. In fact, in a number of countries social security tax and personal income tax are already merged.

But much taxation and even many "fiscal welfare" measures are, arguably, regressive.* Many personal income tax exemptions and lower rates of tax benefit only the richer citizens by exempting from taxation expenditures which the poorer citizens also would like to but are not able to make.** Moreover, the further one moves from direct to indirect taxation the more regressive taxation becomes. Consequently, the greater the need for social security or social services to come to the rescue of those with small incomes.

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* Titmuss, R.M.: Essays on the Welfare State, op.cit., p.44.

** Sutch, W.B.: The Responsible Society in New Zealand. Op. cit., p. 22, f.

Originally, neither taxation nor social welfare had much connection with "vertical" or "horizontal" equity. "Vertical" equity, in the sense of distributing fairly the burden of taxation among incomes of different magnitudes and "horizontal" equity, meaning that people with the same taxable income paid the same amounts in tax, were equally alien to taxation which was simply devised to raise money for the state's expenditures. Equally, "welfare", which preceded social security, served merely to "patch things up at the bottom" of society.

Once the idea that people should pay taxes in proportion to benefits received was abandoned as untenable fiscal theory had taken a long step towards the "sacrifice" theories which imply that the sacrifice of income foregone should be in some sense "equal". The problems this raises are not only those of needs, which have already been considered above, but also technical problems of how to define "income", mainly for the purpose of calculating the income base on which tax is calculated.

A definition still fairly widely accepted is Simons', according to which

> "Income represents the net accrual of purchasing power during a given period that a person could spend while keeping his income intact."*

It was broadened later to take account of differences in sources of income in what is perhaps one of the most thorough studies of taxation, that of a Royal Commission in Canada in 1966.** Interesting in Simons' definition is that it could be interpreted as taking due account of inflation.

Neither of those nor many other definitions provide an answer to the question whether transfer payments such as pensions are not better handled through direct government expenditure by systems other than taxation.

In a number of systems, a high proportion of incomes are in fact below the threshold where tax becomes payable. This was the position in Britain. A problem arose there when this threshold was lowered steeply in recent decades. Whereas in 1938/39 less than 4 million people had incomes that brought them above what was then the tax threshold, by 1970/71 this lower limit had been moved up, largely as a result of inflation, to a point where over 20 million people were within the range of income tax. The latter figure included many whose incomes were below levels where they became entitled to receive supplementary and similar benefits or, in other words, so poor as to need money to bring them up to a standard of minimum subsistence. Yet these very people were at the same time paying out part of their inadequate income to another department of government.* Atkinson noted that in 1971 three and a half million out of five and a half million pensioners were even below income tax levels.

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* Simons, H.C.: Personal Income Taxation: The Definition of Income as a Problem of Fiscal Policy. Chicago University Press, 1938.

** Royal Commission on Taxation: Report. Ottawa, The Queen's Printer, 1966.

To evaluate retirement income in Britain it was clearly necessary to consider in addition to pensions also taxation by the central government, local rates, national insurance contributions, means-tested benefits, family benefits, personal medical benefits, housing allowances and a range of similar transfer payments. The practice of collecting tax from people below the subsistence threshold conflicted with a clear principle laid down by the Royal Commission on the Taxation of Profits and Income in 1954 that:

> "There should be no income tax levied upon any income which is insufficient to provide its owner with what he requires for subsistence ..." and where subsistence was defined as "... an income large enough to equip and sustain a healthy and efficient citizen."**

Before considering features of the abortive British "Tax Credit" proposals of 1972 - or at least those aspects of interest also to other systems - it seems best to refer first more generally to the principles of negative income taxes.***

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* Cf., Atkinson, A.B.: "Income Maintenance and Income Taxation", in "Journal of Social Policy" (London) 1, 2 (April 1972) 135-148; idem: Poverty in Britain and the Reform of Social Security, Cambridge University Press, 1969; idem: Unequal Shares. Wealth in Britain. London, Penguin, 1972; and Piachaud, D.: "Poverty and Taxation", in "Political Quarterly" (London) 42, 1 (January-March 1971) 31-44.

** Royal Commission on the Taxation of Profits and Income: Second Report. London, H.M.S.O., 1954 (Cmnd. 9105) para. 54.

*** Cf., Tobin, J., Pechman, J.A. and Mieszkowski, P.M.: "Is a Negative Income Tax Practical?" in "Yale Law Journal", 77 (November 1967) 1-27; and Friedman, M.: Capitalism and Freedom. University of Chicago Press, 1962.

The impetus of negative income tax proposals of various kinds came from two lines of reasoning: the overlap between taxation and income replacement systems and the desire for more adequate income replacement on simple and clearly stated principles. The latter purpose can be achieved through a single system, i.e. by amalgamation, or through systems left separate but closely coordinated, i.e. by a separation of functions. The first boils down to asking how great the overlap is and what the disadvantages are, and the second, to whether the retired would in fact gain more by the streamlining proposed than by alternative methods.

The motive of administrative savings by simplifying bureaucratic machinery for tax and social benefits seems predominant among advocates of such proposals. The elimination of marked discontinuities which arise when a pensioner's income increases and he finds himself worse off as a result of having to pay more tax and/or having benefits cut (i.e. the "poverty gap") comes a rather distant second. Redistribution of incomes seems in fact more remote - though this is arguable.* The question put in this context seems to be less whether larger total amounts should be available to those in need than one of rearranging relativities of need so as to give more to the most deserving and less therefore to those judged to deserve not as much as they received under prior arrangements. This is a highly controversial point and should receive much further consideration.

Savings in administrative costs have been variously estimated in the different American "Negative Income Tax"** and the British "Tax Credit" proposals:*** In the latter case, in terms of a fairly precise but very large figure, expressed in 1972 money value and as savings in numbers of civil servants employed. In the American proposals available at the time of writing, estimates varied very widely according to the different proposals discussed. The experiments made do not appear to have been regarded as conclusive in this respect. The Office of Economic Opportunity selected, in 1968, four towns of medium size in New Jersey and Pennsylvania to apply and test various "Negative Income Tax" schemes. This is believed to have been the first experiment of its kind on any large scale. The experiment continued for three years. The areas had been carefully selected for comparability in economic and social respects. But neither this experiment nor any of the other schemes widely debated in the United States, including a scheme proposed under the subsequent Nixon Administration (which was based on a guaranteed income of $ 1,600 for a family of four and a negative income tax rate of 50 per cent, after the first $ 720) had resulted in a decision to operate any one of these schemes.

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* "It is not possible at this stage to present a definite conclusion on the combined redistributive effects (of the British "Tax Credit" Proposals of 1972). One can say, however, that in view of the effects of the proposals on net cash incomes alone, it seems unlikely that there would be any significant redistribution towards the poor." (Fiegehen, G.C. and Lansley, P.S.: "The Tax Credit Proposals" in "National Institute Economic Review" (London) 1973, pp. 44-67 (56).

** President's Commission on Income Maintenance, Washington, Government Printing Office, 1969; and U.S. Congress, Joint Economic Committee: Hearings on Income Maintenance, Washington, Government Printing Office, 1968.

*** Proposals for a Tax Credit System. London, Her Majesty's Stationery Office, October 1972 (Cmnd. 5116; Green Paper presented to Parliament by the Chancellor of the Exchequer and the Secretary of State for Social Services); and: House of Commons: Report of the Parliamentary Select Committee on Tax Credit. London, July 1973.

Negative Income Tax Schemes of all kinds have this in common: they are based on some minimum level of income for those covered by the scheme who have no alternative sources of income. It is this "poverty gap" between income received and such a minimum which would be met at a rate corresponding to income tax for those above subsistence level.

It is curious to note that in the consideration of proposals of this kind discussion has not focussed mainly on pensioners - although these constituted such a high proportion of the "poor" in both Britain* and America - but rather on questions of possible "disincentives" to work which such reforms might or might not produce among the poor of working age.

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* Rowntree's study of poverty in York, published in 1901, had shown that old age was a cause of poverty among only 5 per cent of the people of York who were found to be poor, at the turn of the century. His last study, which appeared in print in 1951, found that two-thirds of all people in York who were poor were old. The importance of age as a cause of poverty was brought out again later by the Government Survey of Financial and Other Circumstances of Retirement Pensioners in 1965. It was found that one in five of the old people had no income other than the old age pension; and, even more striking, 47 per cent of retirement pensioners had an income below the official poverty line. (Yet, a surprisingly high proportion of them did not draw the Social Security Supplements to which they were entitled - a fact to which attention has been drawn above, in another context.)

One difficulty in judging the various Negative Income Tax (including Tax Credit) schemes is that they have, on the one hand, the advantage of making systems of tax allowances, deductions and social security benefits easier to understand for those entitled to them. On the other hand, poverty is due to a variety of causes and one cannot help wondering whether a single streamlined system would in fact permit sufficient account to be taken of this fact.

In regard to inflation, it is conceivable that, on the one hand, adjustments might be made more rapidly and more frequently. On the other hand, the great expense involved would be more plainly visible to those bearing the largest part of the cost. This might, one would imagine, well act as a brake on improvements. For example, under the British system it is hardly conceivable that the standard rate of income tax could be raised substantially, if at all, but, as Piachaud has shown; the extra burden resulting from his proposals to cut untaxed allowances, fringe benefits, etc. (affecting tax payers ranging from miners to surgeons) would fall heavily on a very large number of (positive) income tax payers.

A difficultywith all of such schemes is that they cannot be superimposed on existing ones for the reason that they are comprehensive. They require therefore far-reaching changes in tax and benefit systems. Moreover, the determination of what is the "right" rate raises difficult problems.

"Tax credits" raise somewhat less radical questions than the American proposals. Also, they are not so new a concept as is sometimes suggested. A "Social Dividend" scheme, somewhat similar in character, but seemingly more generous, was proposed by Lady Rhys Williams as long ago as 1943.* It was rejected because of its cost. A "Reverse Income Tax" was proposed by the Institute of Economic Affairs in 1970.

A number of countries use already some form of tax credits in a limited way. In Finland a tax credit is given for dependent children. In Sweden married couples are entitled to a tax credit if one spouse only has a taxassessable income. In Japan tax credits are granted more extensively in various circumstances including old age, widowhood, etc.

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* Rhys Williams, (Lady) J.E.: Something to Look Forward to. London. Macdonald, 1943.

The British Green Paper of 1972 was severely criticised on various grounds.* Not the least of them was that the principle of equity was given second place to that of administrative simplicity. It was said also that large numbers of people who relied entirely for their income on social assistance payments were to be excluded from the proposal as it stood, and these people - who were in the lowest income groups - would therefore continue to be dependent on means-tested benefits. But this criticism does not of course affect the basic principle of a simpler system free from means tests. Another criticism was the cost of the change. It appeared to be implied at the time that "fiscal drag", that is higher tax income resulting from inflation, would somehow produce the then quoted, not inconsiderable sum of £ 1,300 million. Many thought that it was a serious weakness of the scheme as it stood that it would not sufficiently benefit the poorest people. But, as against this, the principle of recognition of income, free of means tests, as a right and without the need to apply for it was such a great step forward that it was argued by others that the scheme might eventually be improved so as to meet the criticism of exclusion. This point turned out to be of basic importance in the Parliamentary discussion: was the scheme a powerful base for a potentially generalisable egalitarian system of taxation, or were the figures in the 1972 proposal so crucial that the entire scheme would collapse if they were changed: would such a change, if made subsequently, involve sacrificing the scheme's simplicity, held up as one of its principal merits?

An interesting point dividing advocates and critics of the proposal was the question of the "poverty trap", referred to above, that is a situation where some people can actually be worse off as a result of earning an extra pound. This could only be resolved by taking specific cases, looking at them in great detail and guessing how typical they might be. This is no longer worth doing now since inflation would necessitate new sets of figures. But the principle is important.

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* Cf., e.g. Field, F. (Director, Child Poverty Action Group): "Tax Credit Balance", in: Jones, Kathleen (ed.): Yearbook of Social Policy in Britain, 1972. London, Routledge and Kegan Paul, 1973.

The point to be made in the present context is that schemes of this kind must be seen as part of a total picture. If the retired poor find they can take tax credits with one hand but see that they have to pay higher indirect taxes, such as value-added-tax, with the other, one may not imagine them asking that the old means-tested benefits be restored, but the blessing may be less than pure.

The scheme had been intended to be put into operation in 1978. Many critics and some advocates urged that drastic action to improve the pensioners' economic situation would be required much sooner.

The largely economic problems discussed in this and the preceding chapter show that a better legal framework is required for dealing with poverty in retirement. But there are many human dilemmas, it must be recognised also, which cannot be solved by law.

7

Relationships

The Right Relationships:
Older, Younger, Middle-Aged and Old with each other. The Disengagement Controversy. Activity and Integration, or Disengagement?

"Men seeketh in society comfort, use and protection."
(Francis Bacon, "Advancement of Learning". Bk. II, xxiii, 2.)

"The worst sin towards our fellow creatures is not to hate them, but to be indifferent to them: that's the essence of inhumanity." (G.B. Shaw, "The Devil's Disciple". Act II)

"Who are we to categorise people as 'aged'? After all, we are all ageing. Some of us have been ageing for longer than others - are more experienced at ageing, and are rightly proud of our more mature years." (G. Mathiasen)

"The ageing are no more a specific category of person than any of us may be ... But we are not equally endowed with health, wealth or wisdom, and we may develop in the foreseeable future varying degrees of physical, social and economic limitation. It is fundamental for the architect as it is for the doctor, the nurse or the social worker, to know as much as possible about the people who may rely upon and benefit from the exercise of his professional skill - and, in particular, to understand their needs. Buildings are for people not the converse."
(G. Twibill, Architect, Milsons Point, New South Wales)

Even though the lines of demarcation between the old, the middle-aged and the young may not be hard and fast in our contemporary industrial societies, such lines exist and can therefore not be ignored in overt and tacit social budgetting and accounting. This was the justification for looking at the economic problems for the retired at rather greater length in chapter 5, and for considering some of the economic background in chapter 6. If a man is "retired" he is widely considered to be "old". How and why this has come about, what it implies and possible solutions of the problems raised will be discussed in chapters 8 and 9, below.

The problems of the retired and old are manifestly not only economic, financial and fiscal. They are cultural, ecological and psychological also: at least until such time that a "post-industrial" society, of which Daniel Bell and others dream, a society with values different from those of the industrial societies we know, becomes a reality - if ever it does.* This means that we face problems of relationships of older people with the human, social and physical environment.

It is only in recent years that gerontologists have begun to examine systematically the importance of ecological (as against biological) factors in healthy ageing. Environmental factors induce biological and social changes. Empirical longitudinal studies presented by K.K. Schooler, M.S. Saatov, H.K. Salutdinov and B.Z. Ruchansky, Ursula Lehr and H.K. Thomae produced interesting results of research at the Ninth Congress of the International Gerontological Association (1972) and elsewhere. Each of these studies investigated different results of changes in the environment, on ageing. The first examined a sample of four thousand people, at three-year intervals, for effects of ecological changes on morale and health of older people. The second, carried out at the Medical Institute of Adijan in the Soviet Union, was concerned with correlations between ecological factors and longevity, and the third correlated self perception and appreciation of environmental situations, by a sample of people in the middle and higher age groups, with ecological factors. Ecological determinants are receiving increasing attention of gerontologists in East and West. Ecological factors are among the exogenous determinants of healthy or morbid ageing which lie even to-day in man's power to influence more easily than many others.

Many of the ecological changes are long-range changes. And in the meanwhile social provision has perforce to be made against the background of social reality of the relations between different generations in the societies in which we live. In particular, the growing numbers of people whose main occupational, productive function in society has ceased, but who will still live in and have a place in society for another fifteen or twenty years after retirement, raise problems for the solution of which social planning and policy may look towards gerontology.

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* Bell, D.: The Coming of Post-Industrial Society. Heinemann Educational Books, 1974.

Granted that most people can only begin to save once their children have grown up, say for perhaps fifteen or twenty years at best, this may provide a reasonable standard of living for a short time but not for fifteen or twenty years. This puts economic problems in the foreground, as we emphasise throughout this study. But, important as are the economic aspects, this is not all there is in answer to the question why many people retire happily and adjust well to retirement and others do not. All too many people live for that last quarter of their lives in ways in which they do not want to live.

For the past decade-and-a-half gerontologists have studied intensely the problem of inter-generational relationships. Gerontologists have formulated hypotheses and submitted them to carefully designed empirical testing internationally.

Before considering the contribution of gerontology to the better understanding of healthy relationships between generations, "eonology" as Philibert calls it, two points are worth stressing: first, that the question of social isolation of the retired is an eminently practical as well as a theoretical one* and, secondly, that the loosening of social contacts, the "disengagement", to which gerontology has devoted so much attention, is by no means exclusively confined to the age of retirement.

On the first of these points, an episode at the Seventh Congress of the International Gerontological Association (I.G.A.) at Vienna, may serve as an illustration. The rival "activity" and "disengagement" theories had - already well before 1966 - begun to be widely disputed. After listening to a series of sociological papers on the problems of the old adjusting to different environments, one exasperated and perplexed gentleman stood up and, announcing that he was an administrator, asked that someone please explain to him the implications of the papers in terms a planner could understand, so that he would know what facilities required to be provided in the future.

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* In their study of old people in the United States, Great Britain and Denmark, published in 1968, which has come to be recognised as a classic in gerontology, Ethel Shanas and her co-authors noted that the question of integration versus segregation had "emerged as the basic preoccupation" in gerontology. "Are old people integrated into society or are they separated from it?" This they considered not only "the most important theoretical question" in gerontology, but also "... the key question affecting all social policies concerning the aged." (Shanas, Ethel, Townsend, P., Wedderburn, Dorothy, Milhøy, P. and Stehouwer, J.: Old People in Three Industrial Societies. New York, Atherton, 1968, p.3.)

The point was not lost on gerontologists present. Gerontologists working on the psychological and environmental practical implications thereafter gave greater emphasis to formulating the results of their work in forms that made it easier to translate pure research, clinical experiments and sociological analysis into realities of facilities and services better intelligible in administrators' vocabulary.

True, administrators seldom decide policy. They may recommend and advise against certain courses of action. Decisions lie, in the end, with elected persons. They reflect society's, or perhaps a government's approach to a problem. The administrator's ability to plan is vital. To be competent in this subject of inter-generational relations and the place of the retired, a fair understanding of many involved problems is required. Too often, however, the administrator is handicapped by a lack of knowledge of the field - and gerontology is no exception. Out of the discussions at the I.G.A. at Vienna came a clearer appreciation within gerontology of the need for defining the problems and expressing them in language translatable into policy. In so far as gerontological problems are so largely psychological and ecological - to determine the place of older people in society and the environment, and the relationships between generations - this is asking for much closer links between theory and practice.

Another illustration of the same point (the social isolation of the retired) is provided by the psychological implications of greater flexibility in individual choice of retirement age.

Many of those still at work are entitled, here and there, to retire early, under new and imaginative provisions. But as long as the predominant image of the retired's, the pensioner's, the old person's role in society remains so largely a negative one, large numbers of people will hesitate to take advantage of this right. Many a man will recoil from assuming the status of being "old" even though he may wish eagerly to retire and although it may be in his interest that he should.

A. Lipman's research in America and U. Lehr's and H.K. Thomae's longitudinal studies in Western Germany have shown that many an older working man's dread to assume the "old" man's status - which is so widely deprecated - and his wife's reluctance of seeing her role of running the household diminished, may counteract the best-intended provisions for early retirement. Professor Lehr reports the comment of the wife of a working man approaching sixty-five:

> "If my husband retires before he is sixty-five I have to listen to the neighbours' disparaging remarks about him being a 'weakling', 'always ill', not being able 'to stand the pace any longer'. But if, after he is sixty-five, he might want to go on working people will say 'how greedy' he is and 'never satisfied'."*

It is therefore the persistently negative image, the stereotype of the retired person in societies geared to achievement, the cultural climate of opinion in efficiency-oriented societies that renders such changes of status difficult.

The second point, the loosening of social contact - the centre of the controversy to be discussed in this chapter - is by no means characteristic solely of retirement, although protagonists of the "disengagement" theory seem to imply sometimes that it is.

The changes associated with giving up a work role imply a loosening of personal and social contacts. This is what disengagement means. This disengagement, described by some gerontologists as social isolation, has been considered by these same gerontologists as characterising old age.

It is worth noting none the less, as many psychologists have indeed done, that people at younger ages also pass through such phases. Instances of disengagement are, weaning, the first week at school, joining a peer group: all mark disengagement of one kind or another. The child's mother and father learn, successfully or not, to accept changes. If they fail to accept the change in familiar forms of contact they sow the seeds of conflict situations affecting themselves and their children in later life.

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* Lehr, U.: Psychologie des Alterns. Heidelberg, Quelle & Meyer, 1972. p. 215.

Young people withdraw, that is "disengage" from group allegiance and replace such allegiance by individual friendships and closer individual ties. Such phases of disengagement occur often at the beginning of working life when contacts with peer groups of school fellows may be loosened. They may occur on marriage: especially in the case of women, isolating themselves, i.e. disengaging from an occupational role, and again on the birth of the first child, then much later when the last child leaves home, perhaps because of his or her marriage, that is a disengagement process at the age when the mother may be, on an average, forty-seven and the father forty-nine.

But the social contacts given up are often replaced by new social engagements, perhaps within the family or at other social levels, but after a certain interval. This makes it perhaps somewhat surprising that the process of disengagement should have received such incommensurate attention in regard to retirement and old age.

According to the theory of "disengagement", older people desire certain forms of social isolation, a reduction of social contacts, and achieve successful and satisfying aging by withdrawal from society. The idea is perhaps best expressed by Shakespeare's King Lear when he bequeathed his Kingdom and his regal responsibilities to his daughters ...

> "... t'is our fast intent
> To shake all cares and business from our age,
> Conferring them on younger strengths while we
> Unburthen'd crawl toward death..." (I, i, 39-42)

The theory, in the form in which it was first formulated, is best expressed in a work edited by two American gerontologists, Elaine Cumming and W.E. Henry

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of the University of Chicago.* In this form, it rejected activity in advancing years, on various grounds, including the incompatibility of activity in old age with necessary preparation for the end of life. This point, among others, was tested subsequently and convincingly disproved by a considerable amount of empirical gerontological research.

The theory postulates that successful ageing depends on society's readiness to free the ageing individual from his social commitments concurrently with the older individual's desire for such release and disengagement. This inevitable, gradual process is assumed to be mutually satisfying because society as a whole is gratified when the old interfere no longer with the normal course of economic processes and because the old for their part can better face the future with equanimity by gradually relinquishing their social ties.

If either society or the individual put obstacles in the way of disengagement, adaptation to successful ageing, according to this theory, is thereby impeded and can be correlated with growing dissatisfaction.

Talcott Parsons, one of the leading sociologists of our time, based himself on the decline of the three-generation family and the allegedly reduced family ties of the nuclear (conjugal) family (that is parents and adolescent children) and envisaged a growing isolation of the old from social structures and interests. In his preface to Cumming and Henry's study, Parsons predicted - rightly, as it turned out - that the disengagement theory would become a challenge for gerontological and psychological research and would stimulate much empirical work. In the past decade and a half Cumming and Henry's study has indeed become a kind of classic for the study of the place of the retired in society. A considerable amount of empirical investigation in many countries - including comparative international studies - has led to far-reaching modifications of the theory.

By contrast to the disengagement theory, a somewhat earlier "activity" theory had postulated that successful and contented ageing depended upon the older individual's integration in society, on the contribution the older person continued to make and on his feeling of being still useful, wanted and needed.

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* Cumming, Elaine and Henry, W.E.(eds.): Growing Old. The Process of Disengagement. New York, Basic Books, 1961.

Conversely, rejection of the older individual by society and lack of a positive function in society created unresolved conflict, inactivity and morbidity among those retired and excluded from status-conferring work roles. In other words, according to this theory, a man can grow as long as he ages. From this it followed that the function of the social institutions of society was to provide facilities for continuous development.

One of the clearest earlier exponents of the activity theory was the late Professor Arnold M. Rose of Minnesota. In his earlier writings he had argued, on the basis of research data, that "disengagement" was simply a function of American culture in its present phase and in no way universal for all time. Later, in the sixties, he moved from a more neutral position: that the attitudes of the old were a product of varying interactions between older and younger people in a given culture, to a more positive idea of "age consciousness". By this he meant types of people who became aware, not merely that they were growing old, but that they were subject to certain deprivations because they were old. This, Rose argues, leads old people to a sense of making common cause with other older people for the purpose of activity to rectify such disadvantages.

Some of the exponents of the activity theory in the 'fifties and early 'sixties had deplored the decline of the older generation's function of transmitting information and perpetuating traditions. David Riesman in the "Lonely Crowd" (1950) had shown how modern media of communication had increased the generation gap by depriving the old of these functions.

Some practical-minded gerontologists in America, Britain and in some other countries had drawn the conclusion that pensioners' clubs were the best solution for reactivating the old who had lost contacts and functions in society. Hence clubs and centres of this sort, with all kinds of colourful names, were promoted and did indeed create almost a sub-culture of the old, in a sense a counterpart to the sub-culture of adolescents. Groups and clubs confined to people past working age might, it was thought, stimulate activity among the old and the very old. It was found though that such centres and clubs tended also to intensify a feeling, among retired people, of being excluded from the rest of society and, in this way, to increase further the isolation of the old and produce a kind of counter-culture to the rest of society. In so far as this occurred it tended to increase problems of successful healthy ageing. As for relations among the very old - in a functional rather than a chronological sense - it was found that entering an old people's home had often a negative effect. Many found it hard to make contacts and, where they did so, contacts remained often at a casual and superficial level. Sometimes proximity and contact led to hostility, a worsening of the atmosphere and then to complaints about this.

The testing and subsequent modification, not to say reversal, of the theory of disengagement represents a landmark in the history of gerontology. It coincides with a phase in the human and behavioural sciences generally, to free themselves from the last vestiges of an anecdotal and philosophising approach to the study of human ageing. Interviews of inmates of an old people's home were no longer acceptable as a base for generalisations about _the_ old. Yet, it became equally clear that breadth alone, in the sense of questioning vast numbers of people, could not be an adequate substitute. One of the most important studies for the development of gerontology as an inter-, almost trans-disciplinary approach was one based on a very carefully analysed group of no more than forty-seven individuals.* It brought together study of biological, physiological, sociological and psychological factors in ageing.

The disengagement theory stimulated a psychological and social approach to the study of ageing, the beneficial effects of which are felt to this day.

The original postulates regarding inevitable relationships between the old and other groups in society, expressed in the disengagement theory, were based on interviews of a cross section of 172 men and women aged 50 to 70, and 107 people aged 70-90, as part of the Kansas City Study of Adult Life. Subsequent research on social contacts between age groups became centred much more on specific points of the original postulates, such as the self-image of the ageing individual of different personality types, and reactions of others to such self images.

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* Birren, J.E., Butler, R.N., Greenhouse, S.W., Sokolow, L. and Yarrow M.R.: Human Ageing. _A Biological and Behavioral Study_. Bethesda, Maryland, National Institutes of Health, 1963.

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The theory of disengagement, as originally formulated, began to be modified in 1964 by a number of gerontologists, Havighurst, Bernice Neugarten, Tobin, as well as W.E. Henry himself - the latter having been one of the original proponents of the theory. Emphasis shifted from "decreased social interaction", a process of mutual withdrawal of the ageing individual and society, to "intrinsic disengagement". By this was meant the older individual's increasing preoccupation with his own self, concomitant with withdrawal from social activity and participation.*

The important break implied in this modification of the original theory is that it was noted, as a result of precise scientific measures, that

> "... engagement, affect and life satisfaction are not interrelated in any simple way. At least one other variable must be involved. That variable is probably personality."

It was conceded that certain older people showed a higher or lower score of life satisfaction if they could abandon social roles, *but* that this *varied* according to the individual's past experience, social class, personality structure, temperament, and whether his or her life had been "home centred". It was observed that people who had been particularly active earlier in life and participated much in public and social activity showed indications contrary to those who had not such a history.

This brought the question of "compensatory engagement" into the centre of the debate or, in other words, whether restriction of certain types of social, e.g. occupational activity was not accompanied by an increase in family-centred social activity.

As a result of the lively debates at the Sixth Congress of the International Gerontological Association in 1963, a comparative cross-national study had been undertaken by gerontologists in Austria, France, Germany (Federal Republic), Great Britain, Italy, the Netherlands, Poland and the United States of America. Its purpose was not only to test the rival "activity" and

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*Havighurst, R.J., Neugarten, Bernice, and Tobin, S.S.: "Disengagement Personality and Life Satisfaction" *in*: Hansen, P.F.(ed.) *Age with a Future*. (Proceedings of the Sixth International Congress of Gerontology; Copenhagen, 1963) Copenhagen, Munksgaard, 1964.

disengagement theories, but also to develop new methods of study.*

As was to be expected, the results showed considerable differences in the various environments studied, especially in regard to different roles such as grandparent, parent, neighbour, citizen, worker, acquaintance, member of clubs or societies. But the general trend revealed by this cross-national study was a high positive correlation between activity and satisfaction and, conversely, an indisputable connection between low role activity and dissatisfaction. The results led to further questioning of the disengagement theory.

Further studies of a sample drawn from two occupational groups, manual working class and non-manual middle class employees in the steel industry in Rhineland-Westphalia by Lehr, Dreher and others in 1969, showed that the disengagement hypothesis required much further modification.

The investigators noticed that a state of *temporary* disengagement - meaning increased satisfaction at reduced social contacts - was one of several ways in which older people reacted to a stress situation such as retirement. But once the subjects of the investigation had adjusted to their changed situation, renewed interest and engagement resulted. Similar results were produced in a number of case studies conducted in Holland by J.M.A. Munnichs.

Two interesting conclusions emerge from this and subsequent empirical work.

The first, to which Thomae, Lehr and other members of the Bonn-Cologne Group of gerontologists have drawn attention in their various publications, is that the disengagement theory may have a certain validity for a short period but *not* for the *entire* post-retirement phase of life.

Adaptation to a new social situation in life, such as is called for by retirement appears to provoke a kind of withdrawal in order to reflect and take stock of one's own new situation. Parallels with similar changes in life: at adolescence or women after the age of forty-five, come to mind.

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* Fröhlich, W.D., Becker, J., Bengtson, V.L. and Bigot, A.: "The Problem of Cross-national Reliability of Ratings. Some Tentative Approaches and Findings", *in:* Havighurst, R.J.(ed.) *Adjustment to Retirement*. Assen, van Gorkum, 1969.

It is often followed, at all these phases in life, by subsequent reorientation and a readiness for renewed social activity and engagement. Disengagement in this sense may be interpreted as a temporary reaction to a situation of abnormal strain, caused by external social (as distinct from biological) factors. None of the investigators deny that considerable individual differences exist, and they seek to offer explanations for them. But they oppose strongly any attempt to represent disengagement as a typical form of successful ageing. Quite on the contrary, they see a feeling of need, on the part of retired people, to be useful and needed again and to be invited - or even only allowed to play a part in the life of the community, as a normal state, after a temporary phase of disengagement of varying intensity and duration.

Secondly, a number of gerontologists, among whom G.F. Streib, C.J. Schneider, G.L. Maddox, E. Palmore and C. Eisdorfer are perhaps the most prominent, point to the disengagement theory as providing a strong argument for longitudinal gerontological studies: investigations in which information from and about the same individuals is systematically and scientifically collected and analysed over a long period of time*: as opposed to a method whereby generalisations are made as a result of sampling of age groups, as was done in the investigation on which the original disengagement theory was based.

Empirical data collected in recent years show that the latter approach - which is still all too common - might well point to increasing disengagement, as different groups of people of increasing age are questioned. These later investigations supply evidence that results obtained in this way do not prove the disengagement hypothesis. Maddox in particular shows that decreasing interest in the environment found among a group of people aged eighty and more was explained by the poor state of health of the subjects chosen.

A longitudinal study by the Bonn group of gerontologists, notably Lehr and Rudinger, in the later 'sixties and early 'seventies showed a marked decline in adaptation and satisfaction, that is in "successful ageing", as role activity was reduced. These studies lend much support to the presumption that there is a strong interaction between social participation, contact and activity, on the one hand, and satisfaction and "successful ageing" on the other.*

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* Cf. Streib, G.F. and Schneider, C.J.: Retirement in American Society. Ithaca, N.Y., Cornell University Press, 1972, report results of research begun in 1952 and carried on over almost two decades. The length of the time span covered for the same individuals greatly enhances the value of such research. Enough is known about social changes that occurred during the period in the society where the subjects lived, for this variable to be allowed for.

Most of the results of research that have been published suggest that withdrawal and disengagement tend to be health-related rather than age-related. Men at an advanced age appeared to derive great satisfaction from social participation in roles as citizens. Women seemed to increase their interest in good neighbourly and family-centred activities. In addition to variations attributable to status of health and sex-specific differences, there are considerable divergences explained in terms of experience and environment at a younger age. The important point is that the various conclusions of different empirical studies draw attention to methodological problems, notably the need for scientific methods in studying a large number of variables.

The disengagement hypothesis was taken very seriously. A number of inquiries, in addition to those already mentioned, have been undertaken in environments comparable in specific respects, in various countries, in recent years. Some of these studies have been completed, others are still in progress. Where those available already seemed to support the original hypothesis and checks were possible over a period, it turned out usually that disengagement and dissatisfaction among men approaching seventy and women somewhat younger did not, on the whole, last for more than five years.

Family circumstances, economic status, level of income, state of health, opportunities for useful work and similar factors need not necessarily be held constant, but must be part of the multivariate analysis if results of research are to have meaning.

The antithesis between the "activity" and "disengagement" theories of ageing may not be as strongly contrasted, as is suggested by the forms in which these theories were first expressed. None the less, it can not be glossed over by statements such as:

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* Lehr, Ursula: "Die psychologischen Veränderungen im Alter als Voraussetzung der Rehabilitation". Lecture at Berne (unpublished) 7 March 1974.

> "The retiring person's problem is to find satisfactory ways of disengaging from employment without suffering economic hardship or emotional deprivations such as loneliness and boredom. A good solution requires mutual adjustment between the individual and society: the individual may retire if he needs to, without undue loss to society, and society can, if it wishes, superannuate him, without undue personal harm ..."*

> "... both activity and disengagement theories can correctly describe the social-psychological process of aging. If disengagement is defined in terms of the social-structural level (withdrawal from the extended family, withdrawal from the economy) it can be supported. If activity is defined in terms of the personal, interrelational level (interaction with friends, age-oriented organisations and clubs, recreational groups, etc.) it can be supported ... both can happen.**

The practical implications of theories such as those discussed are important in considering social, social security and housing and town planning policies affecting the retired.

The decline of the three-generation family and the rejection and exclusion of grandparents are often cited as causes of social isolation of the retired, following Parsons, Riesman and others. Resentfulness and annoyance of the old is often alleged to result from this. In fact the disengagement theory sprang perhaps partly from an analysis of this kind. Ethel Shanas has labelled such theories about alienation of the old and their social isolation from their own families a "social myth", invented and kept alive by people with a professional interest in ageing. She maintains that,

> "... childless old people ... are the most likely of old people to believe that aged parents are neglected by their children."

Such statements, she observed, were much less common among people over sixty-five who had children.

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* Bromley, D.B.: The Psychology of Human Ageing. London, Pelican, 1971.

** Martin, W.C.: "Activity and Disengagement. Life Satisfaction of In-Movers into a Retirement Community", in: "Gerontologist" (St. Louis, Mo.) 13, 2 (Summer, 1973) 224-227.

Household sample, micro-census and similar statistics, where such exist, do in fact show that the three- or four-generation household has become much rarer, especially in urban and metropolitan environments. Some gerontologists have interpreted this as an increasing "isolation of the old in space". If we add childless and unmarried old people, we find that indeed very few of the older people live in three generation households, that is in households of grandparents, parents and children. Ethel Shanas's representative samples put the percentages in the United States at 12.3 in 1957 and 7.6 in 1962. Stehouwer found that in Denmark in 1965 only 4 per cent of all those over sixty-four lived in three generation households. Rather higher percentages were found, for about the same period, by Piotrowski in Poland.* Rosenmayr at Vienna and Basle,** Cseh-Szombáthy and Andorká at Budapest.*** If households comprising only people over sixty-four and their adult children are considered, i.e. the middle generation without young children, the percentages are considerably higher.

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* Piotrowski drew close parallels between modernisation of agriculture, urbanisation, development of social security, and the decline of multi-generation households. He saw a marked trend in Poland for people to live in nuclear rather than extended families in so far as housing shortages made this possible. He emphasised that there were not two sharply distinguishable categories: three- or four-generation family and nuclear (conjugal) family, but rather a gradual continuum stretching from the one to the other. He found that multi-generation households were much more common in agricultural than in industrial areas, higher among non-working elderly people, commoner for older women than men, for the "older old" than for the "younger old", the impaired than the healthy (Piotrowski, J.: "The Three-Generation Family in Poland", in: International Gerontological Association: Proceedings (8th Congress) Washington, D.C., International Gerontological Association, 1969, vol. I, pp. 263-266.)

** Rosenmayr, L.: "Soziologie des Alterns" in: Bergedorfer Gesprächskreis: Protokoll No. 43. (1972), 77-89; and idem: "Soziologie des Alters" in: König, R.(ed.): Handbuch der empirischen sozial forschung (2). Stuttgart, Enke, 1969; 306-357.

*** Cseh-Szombáthy, L. and Andorká, R.: Nyug díjasok Helyzete és Problémái (The Problems of Old People), Budapest, 1965; and Andorká, R., Babarczy, L., Cseh-Szombáthy, L., Ghiczy, B., and Lakatos, A.: Az Öregek Helyzete és Problemái. (The Situation and Problems of Old People), Budapest, 1972.

Data of this kind cast doubt on the callousness and gerontophobia of the middle generation towards their parents.* They raise also the question of how much accommodation in fact exists with sufficient space for three-generation households.

Before pursuing this subject further with the aid of available sampling statistics and similar data, it is worth quoting personal experience which is so much more vivid. Without any claim to generalisation it conveys by its directness and immediacy a better perspective to the preceding and the following considerations:

> "My parents lived in their own little flat on the top floor of our house, until my mother was 81 and my father 86. The positive aspects of this arrangement far outweighed the negative ones. They managed their own housekeeping. They went out of their way never to impose upon us. Yet they were close to us.
>
> Our four children, now aged 10, 18, 19 and 20 had, and still have close and friendly ties to their grandparents. We too, my husband and myself, benefited greatly. My parents for their part, up to an advanced age, had an assured feeling of being 'needed' and 'able to help' - which had a most beneficial influence on their health and kept them mentally alert and agile.
>
> Two or three times a week, on fixed days, they came downstairs to have dinner with us. On special festive occasions, such as when one of the children had passed an exam, they always took part. Once a week we gave their flat a thorough cleaning. When they did not feel quite up to the mark we did the shopping for them. Their laundry we took care of always as a matter of course.
>
> When they suffered spells of temporary illness we younger ones were always at hand to make the extra effort needed.
>
> Then, almost from one day to the next, my mother needed full-time care. Thanks to a first-aid course I had taken and as a result of voluntary help I had given in the ... hospital and aided by my old father and my daughter, then aged 16, I was able to take

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* E. Palmore, Professor of medical sociology at Durham, North Carolina, defines gerontophobia as "unreasonable fear and/or irrational hatred of old people" and argues that it is probably not to be found among as high a proportion as 20 per cent of the people of the United States, as had been alleged, but was none the less widespread because of the common negative stereotype image of the old which led to "avoidance of the old" and their "exclusion from the main stream of society", rather than perhaps "fear" and "hatred". Letter in "Gerontologist", 12, 3(I) (Spring, 1972) p. 213.

> over. Mother needed 100 per cent care. Two of us always had to stay home. It was a hard time and lasted four months before there was a place for mother in the ... Home.
>
> Seeing the intensity of care that old people's illness requires to-day, the burden it imposes on the younger is not bearable for any great length of time. There is no limit. Years may pass before there is a change. The end - this may sound harsh - is not in sight.
>
> Slowly but surely such care becomes too much - which will not surprise anybody. I have been told that in geriatric homes the proportion of staff is 1 : 1, with a timetable of work of nine hours a day, five days a week. Women have families at home and their day's work is never done.
>
> There comes a point when entering an old people's home becomes unavoidable. It is not a matter of 'pushing the old people out of the way', as is often said - so very wrongly. For without the help of the younger the old would long since not have been able to keep house any more. No, it is not riddance, but the last inevitable step. But, even then we can do much to prevent isolation of the old. A walk in a pushchair, doing the laundry and, especially, frequent visits, talking about one's own daily life: it all helps to keep in touch with the world outside.
>
> What would be ideal, I think, would be if old people's homes and geriatric institutions would give relatives the chance to take an occasional holiday free from care, to gather fresh strength - if such institutions would take old people during such holidays for two to four months."*

One would not venture to guess how typical or exceptional such attitudes may be. They do support those who hold to the belief that the family is rapidly becoming the only institution left in an increasingly impersonal world where each person is loved not only for what he does or makes but simply because he *is*: the institution where most of us, as children, as parents and grandparents acquire and maintain a sense of continuity with the past and a sense of commitment to the future.

Independent studies made by gerontologists in at least seven countries in recent years showed that from six to nine out of ten older people who had children or children-in-law still living, lived not more than an hour away from the home of at least one of them, so that contact was not too difficult. Gerontological sample inquiries in Denmark, Germany, Great Britain, Hungary and even in the United States, a much larger country, showed that about two thirds of aged parents had almost daily contact with their children. Differences were very marked however between old people living in institutions and those living independently. Almost half of the former were childless. But even of the old people in institutions who had children those who had no contacts with them at all or only few contacts, were no more than a quarter of the total number.

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* Contribution made at a recent meeting of a geriatric society. Prior to this statement, a remark made by a geriatrician about the "callousness" and "selfishness" of to-day's young towards their older relatives had been loudly applauded by an audience of several hundred people, most of them doctors and nurses. The speaker had implied that if only the young would take their responsibilities, overcrowding of hospitals by geriatric patients would no longer present the problems it does. After the remarks quoted above no more was heard of this argument in the discussion.

Inquiries into spatial separation of generations show that there is a common and predominant pattern which makes frequent contacts possible - and that without the disadvantages of sharing a housing unit.

An interesting light on attitudes of generations is provided in a study made by Streib and Thompson in the United States.* It was found that the majority of old people interviewed preferred to live independently of their children, but liked to have close social and emotional contact with them: "Innere Nähe durch äussere Distanz" (Emotional closeness but spatial distance), as Tartler puts it on the basis of a study in Germany, or "Intimität aber auf Abstand" (close contact but at a distance) as it is expressed in Rosenmayr's and Köckeis's Austrian study.

Similar studies in the United States by M.B. Sussman and others showed a close network of social relations within extended families consisting of a number of conjugal families. Help was given by children to parents and vice versa and also, but less commonly, among more distant relatives. A number of empirical studies have shown the forms such help took: shopping, help with housework, practical advice of various kinds, using leisure time to keep the older company, older people looking after young children. Many of the observers noted that many of the middle (working) generation performed such services without legal or other contractual obligations, out of a feeling of commitment.

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* Streib, G.F. and Thompson, W.E.: The Older Person in a Family Context", in: Tibbits, C.(ed.): Handbook of Social Gerontology. University of Chicago Press, 1960. 447-488.

Pierrette Sartin made the point that sometimes relations between the adolescents and the old were better than the relations of either with the middle generations. She mentions an experiment in France where this had worked particularly well, and another one at Quebec where young people took courses of training to help the old.

None the less statements about the "dissolution of the family" are not lacking. Increasing isolation of the old generations is sometimes attributed to the craving of the younger for money and material possessions. Such statements rest more often than not on unsupported generalisations of individual instances, the worst possible base for social integration.

The decline of the three- or four-generation family and the isolation of the oldest generation - often, but wrongly, associated with it - have been studied systematically. Inquiries we have seen show, without exception, that it is predominantly the old generation who reject the three or more generation household: not because it is difficult under existing housing conditions; but the great majority reject it as undesirable.

Where old people were asked in various countries, it is interesting to find that of those who have favoured the idea, about two to four times as many (20 to 30 per cent of all those asked) were for it when the question was put in an abstract form compared to a much smaller number (8 to 10 per cent) when asked in the more personal: 'Would you prefer to live with your children and grandchildren?'

There were differences, as is only to be expected, between old people still married and old widowed people, but even greater differences explained by personality structure and experience. Traditions and income play a role certainly. But psychological investigations suggest that these are by no means the only variables; or, as I. Rosow puts it:

> "The more friends are available to the aged person, the less he is dependent upon the family for emotional support. The greater the loss of (social) roles by the aged person, the greater the dependence upon the family for emotional support."

Isolation and dependency should, in the opinion of many gerontologists, be clearly distinguished. Many who are dependent are by no means isolated. Equally many who feel isolated are not in any sense dependent, as a number of inquiries tend to show.

Loneliness is a subjective feeling dependent on expectations and is interrelated also with state of health. It can be counteracted by encouraging self confidence and also by promoting wider interests. Here again, as with so many phenomena encountered in old age, the roots lie in earlier experiences of the same individual, often at very early ages.

A gerontological symposium at the University of Michigan in 1968, showed that parents rewarded children's dependency at very early ages, and that this was hardly calculated to promote self-reliance and independence in later life. Escapism into dependency through illness was, so it was argued, not an uncommon consequence of such attitudes, deliberately, if unconsciously fostered in young children by parents.

Social policy can minimise social and economic dependency at higher ages where dependency tends to become more marked. But it is as well to be clearer about the multicausal origins of dependency.

Dependency, passivity and resultant pathological states may become extremely difficult conditions to deal with at advanced stages. Frustration in childhood and at working ages reduce activity and capacity for social participation later in life.

What all such psychologically-oriented studies show is that there is no justification for generalisations as to general dependency and generalised isolation of the old. The stereotyped image is common enough in societies of the present day, but it lacks a soundly-based scientific foundation and contributes, in itself, to promoting attitudes of the old which are detrimental to themselves and harmful to society as a whole.

Inter-generational conflict has assumed more acute forms in our time. Prevalent aggressivity seems to be marked more by a protest of the adolescents against their parents, the contiguous middle (adult) generation than by the young or the middle generation against the retired.

Lack of communication between the young and that adult generation creates the more severe social tensions. Even so, many of the middle generation pretend to have a better understanding of the young.

Many of the social tensions which exist have their origins in grievances of the young adolescents against the adults already safely established in positions of power. But the gulf between these generations is certainly not entirely due to economic rivalry.

Negative reactions of the retired towards the young have their origins in conflicts in which they are not directly concerned and of which they may not be entirely conscious. To see this in perspective a plea should be made again, as was done in other chapters, in other contexts above, that problems of the old and the retired should be considered as part of a total social situation.

There is much in the preceding reflections which does not lend itself readily to changes in social or social security policies - at least not in a simple direct way, at the present state of our knowledge. But it forms a very necessary background to work which will leave the baffled and perplexed administrator eventually less so.

Very much closer to such policies are questions of housing and accommodation. Here, retirement may bring a sharply marked break. Many employees live in houses owned by institutions or persons employing them. Once the contract of employment ends such accommodation may be demanded for their successors, either directly, contractually, or by means of financial inducement, where the law grants the tenant a certain protection.

The experience of retirement itself may be abrupt and painful enough without the threat of losing one's home and having to leave a familiar environment.

This is of course not necessarily so. Many older people are only too glad to abandon a home that has become too large or too expensive after the children have gone and their own income has shrunk. Or it may be because the only advantage of the home was its proximity to the work place; and newly retired people are, then, delighted to leave for more salubrious or scenically attractive neighbourhoods by the sea or in the mountains. Others, living in upper storey flats, long for bungalows where there are no stairs to be climbed, or for gardens to tend, houses of their own to be adapted to their liking.

Those who can afford it are often ready to tear up their roots and settle in a new environment, perhaps some former holiday haunt - which then acquires a top-heavy population requiring expensive services out of local public funds, services which had not existed before, or only on a small scale. For the retired themselves, in such situations, it may take some time to discover that the idyllic sunlit bungalow by the beach looks and feels different in winter and in storms. Life in the country may not be the same as a permanent arrangement for those who have spent all their adult life in a large town. New friendships in a mainly one-generation community are easier to establish for some than for others. Moving house at the ages of 60 to 70 may be easier for some than at 25 to 35. Moving at the ages of 74 to 80 may be a different matter for the same person. Yet about one thing at least gerontologists, be they primarily biologically, psychologically or socially oriented, seem to be agreed, that it is highly desirable that people as they grow older should live as long as possible independently in homes of their own.

While it would not be true to say that town and country planners have taken no interest in gerontological study and research a look at - admittedly not a thorough investigation of - gerontological writing shows relatively little concern with all-important questions of housing and town planning to meet older people's requirements. Questions, of the three generation household, in which gerontologists have been greatly interested, as we have seen, have rarely been looked at thoroughly in architectural and social and health terms taken together. Gerontology and geriatrics have been concerned with lack of accommodation in institutions for the care of ailing, destitute or isolated people, without however going very far in the direction of physical and social planning in a search for alternatives. There are exceptions: some of them notable by their imaginative approach, particularly in Holland and Sweden - a few in Britain and elsewhere. Voluntary associations have been readier sometimes to experiment than a bureaucratic apparatus. The Bedford Citizens' Housing Association established in 1957, catering for older people of limited means and financed by loans and grants from Bedford Corporation, is an interesting case in point.*

"At no stage in life is housing as important as in old age", as one gerontologist put it. Some adapt easily to changes even at advanced ages. J.T. Freeman, the biographer of Dr. I.L. Nascher (1863-1946), the founder of geriatrics, reports Nascher as saying in 1943, when he had to give up his home and move into a boarding house:

> "I can accommodate myself to almost any environment and condition of life, but I miss companionship, especially of persons whom I can talk to on current subjects."

There has been much discussion for several decades about segregated residential estates for retired and older people. Indeed a fair amount of such accommodation has been built in the past ten to fifteen years in various countries.

> "La société accepte avec facilité une ségrégation des vieillards, qui l'arrange" (Society accepts only too readily segregation of the old, that suits it),

as P. Gilliand puts it rather pointedly.** Type and nature of the buildings erected for segregated housing of old people have been extremely variable.

What is surprising is that many of these age-segregated buildings and housing estates are apparently regarded as suitable by many who have moved into them.

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* Cf. "Lancet" London, 1972 I, 7744 (29 January 1972) 272-273.

** Gilliand, P.: Vieillissement démographique et planification hospitalière. Lausanne, Canton de Vaud, Service de la Santé Publique, 1969, p. 231.

J.P. Aubry reports an experiment near Geneva in Switzerland where 350 mainly working class people above retirement age, most of them from relative slum areas, were rehoused in a new satellite city at some distance from the centre of the city.* They were allotted flats, specially built for older people, equipped with facilities for those with slight handicaps sometimes associated with old age. These flats are interspersed among ordinary modern flats for people of all ages. The whole self-contained satellite city had a population of about 8,000.

One of the points brought out by the inquiry was that successful integration was neither age- nor health-dependent. Comparisons of satisfaction and social interaction of older and younger people, and activity or passivity in such an entirely new environment, with those who had remained in the old parts of the city were hardly possible. The retired who had moved had done so voluntarily, had not been in the new environment long when interviewed: some one year, some four years, and were, on the whole, disinclined to admit failure. Yet, it is not without significance that less than half of those in the fair-sized sample who were interviewed preferred their new habitat - despite its greater comfort - to the old, or to possible alternatives. Yet, only few were ready to move again. A high proportion made efforts to keep in contact - despite the distance - with friends and neighbours in the old parts of the city they had left.

But, more surprising is that in many parts of the world, many who had moved to age-segregated buildings and housing estates regarded them as suitable.** If these opinions would be generalised it might be assumed that if the next decade saw a repetition of these activities of age segregated planning, the problem as we now see it would largely disappear. But such a point of view is strongly challenged by those who say that shortage of suitable housing - one of the most pressing needs of the elderly - leads simply to acceptance of the next best alternative. It is more likely that acceptance of existing grouped self-contained flats or hostel-type of establishments with residents' private rooms, with or without bath, fully maintained by the management, perhaps even with nursing care included, reflects merely the general shortage of accommodation for older people.*

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* Aubry, J.C.: Les relations sociales de personnes agées regroupées au sein d'un grand ensemble. (An inquiry based on interviews at the satellite city of Lignon, Geneva) (unpublished) 1973.

** Foster, (Dr.) A.J.: "Housing and Welfare of the Old" in: Sax, S.(ed.): The Aged in Australian Society, Sydney, Angus and Robertson (For the Australian and New Zealand Association for the Advancement of Science) Sydney, 1970, 88-100.

In fully independent flats there is often no available support in times of sickness or domestic crisis. In the hostel-type of establishment many people who could be fully, or almost fully independent, are overwhelmed by services which they do not need, which often rob them of their independence and may possibly contribute towards accelerating morbid ageing. An increasing load of nursing-home-type of residents, with several stages of accommodation, ranging from independent living to hostel care and, eventually, full nursing care, tends, for reasons of high staffing costs, to develop into an aged people's village.

The concept of the retirement village is commonplace in many parts of the world. There are large numbers in places such as California and Florida and parts of Southern Europe have acquired the name of "costa geriatrica". The idea of the retirement village is seriously challenged by those who see it as being contrary to normal development. It presupposes that it is proper and socially desirable to isolate a large segment of the population as being a group with separate values, separate interests and separate health and welfare requirements. It is thus an application, in terms of physical segregation of the retired, of the disengagement hypothesis. The alternative proposed by a number of gerontologists is more in keeping with traditional and evolving society. Properly coordinated health and social services, hospital, general practitioner, domiciliary nursing, home help and laundry services should make it possible for people as they grow older to remain in normal housing environments, out of institutions and thereby avoid or at least retard senescence.

In a study to test the "activity" and "disengagement" theories in respect of integrated or segregated housing, Poorkay found, in Southern California, that segregated housing shielded older people from noise and traffic, attempted to give them a sense of good morale and security and opportunities of mutual aid. The sample showed however that these advantages were strongly counterbalanced by unwillingness of older people to enter such housing schemes:

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* ibidem, p. 88.

mainly because they liked to remain closer to relatives, friends and social and other services rather than live on isolated estates.

He found that the old companionship lost was not easily replaced by contacts with their own contemporaries with whom they were brought into new proximity. Nor did they easily adapt to the stigma of being "old", inevitably associated with such housing and living arrangements, by whatever euphemism they might be described. While the author of that case study does not regard the sample as ideal, or indeed conclusive, it cast serious doubts on the disengagement hypothesis as applied to housing of the retired.*

There is ample statistical evidence that existing housing conditions of the older generation, taken as a whole, are less favourable than those of the middle generation. This tends to be so because many people, at the age of retirement, live in older buildings, often lacking amenities now generally taken for granted. Some of the urban areas where their houses or flats are situated have sunk to the level of slum areas, and many of the buildings are classified as "sub-standard" and due for demolition.

But even though plumbing, sanitation, baths, heating, noise, absence of lifts in blocks of flats, the general disadvantages of the physical environment indoors and in the situation of the dwelling may be bad in many respects, there are compensations which the old value highly. The buildings, because they are old, are often not too far from the town centre. Public transport is likely to be better than on the outskirts. There may be parks nearby, or there may not, but clubs and familiar meeting places are usually not too far away, and they are likely to be old established and familiar ones - even though crossing roads, to reach them, may be hazardous. In towns of medium size people often prefer to remain in such environments in preference to suburban areas and satellite cities where people do not know each other.

In such considerations one needs to remember the very marked differences between socio-economic groups. People in the upper and upper middle income brackets, especially in the more mobile societies, move easily and gladly.

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* Poorkay, H.: "Social and Psychological Factors and Successful Aging", in: "Sociology and Social Research" (Los Angeles) 56, 3 (April 1972) 289-300.

Among working class people the reaction to moving house is very markedly different. Sample inquiries in various countries show them to be mostly reluctant to move and often emphatically insistent on being allowed to stay where they are, even if housing conditions are far from satisfactory. The reasons are undoubtedly partly economic. New and more adequate housing is very much more expensive. Retirement, the moment when they experience a sharp fall in income, is hardly the time to increase expenditure. Less so in times of housing shortage, high rents, high purchase prices, high mortgage rates, if indeed mortgages are still obtainable at their age.

Psychological factors also militate frequently among working class people against forsaking long familiar environments, even if the move is only from a town centre to a new housing estate on the outskirts of their home town, or to a well planned satellite city, not more than a few miles from their old home. But the subject needs more investigation. It is certain that many would be only too ready to make such a change. Geriatricians have commented on housing conditions of patients admitted to geriatric wards, conditions,

> "... so bad that patients cannot be allowed to return home ... other old people struggle on in housing that can only accelerate the progress of illness and disability ..."

If social security policy and gerontological considerations aim at keeping retired people satisfied and well - as they must - retired people's wishes as to improving or providing new housing must be respected. This requires offering reasonable alternatives.

It requires also very much more transdisciplinary research and investigation of men and women of different social backgrounds and income groups, psychological categories and motivation. Such transdisciplinary research presupposes active participation not only of social planners, sociologists, medical men and social workers but above all of town planners, architects and others familiar with physical planning.

Physical planning was sometimes naïvely thought to take care of social planning. "A good physical environment will provide a good social environment" many an architect and physical planner imagined.

In Britain's plan for the "Needs of New Communities" outlined in a government paper in 1967, a social development plan for each "new town" was envisaged. It was deemed desirable to provide housing accommodation for the elderly, whose family structure is different from those of younger people. Therefore, as well as for other reasons, types of housing units different from the standard three or four-bedroomed house were, clearly, required. As long ago as 1960 the Ministry of Housing had suggested that new towns ought to aim at achieving by 1980 the national average of old people: 15 per cent. But this goal seems to be far from being achieved. One would imagine that new towns would welcome older people to balance their youthful population. The reasons why the goals are not being achieved merit closer attention and study.

More generally speaking the questions to be asked in planning for the retired are those set out clearly by Dr. Foster, whose views were cited above: 1. Is accommodation needed? 2. Where is it needed? 3. What groups of the elderly require it? 4. How many of them are there? 5. What are their economic circumstances? 6. What is their state of health? 7. What are their social needs? 8. Who should build? 9. What should be built? 10. Who should provide the capital? 11. What should be the source of maintenance? 12. Where should nursing care be given and by whom?

These are not all easy questions to answer. On the basis of such figures as were available for the Commonwealth of Australia, Dr. Foster attempted to answer these questions for his own country. The exercise is well worth making again, and also for other countries.

Architects have said that "a home is a machine we live in". But the machine we really live in is our body or, more specifically, our brain. The human nervous system is a beautifully constructed and perfect machine to live in for a life time, provided it remains intact and is well maintained. But to achieve this continuous and appropriate exercise, stimulation of its functions are needed even in normal individuals. Older people who are not so well physically or mentally need such stimulus the more.

Individual differences among retired are so great that in housing, as in many other aspects of their lives, the widest amount of choice should be available. Some statements made in the last part of this chapter may have given the impression of generalisations without a sufficient empirical base. These are to be taken as hypotheses to be further studied later. We are very conscious that philosophical generalisations about the old should be avoided.

The essence of the subject dealt with in this chapter may be summed up in T. Tissue's phrase: "The old are not really so very different from the rest of us."

8

Work

Man's Relation to his Work and Occupation

"We understand the category of 'employment'; and we understand (or believe we understand) the category of 'old age'. What we have not fully grasped is that technological changes are creating an intermediate stage, often one extending to ten or fifteen years of the life span. In fact, if we are to have any rational policy in the matter those who are responsible for our affairs must avoid the fallacy of supposing that the moment at which men are retired from gainful employment is identical with the moment at which old age begins. That is no longer true .... Society must be prepared to face up to it." (F. le Gros Clark, in: "Work, Age and Leisure", London, Michael Joseph, 1966. p. 151.)

"We have people of all ages in our wards, from the 'teens to the nineties, and a majority have been brought up in a tradition of work, a slightly embarrassing and out of date tradition. If they cannot work they are ill, their day loses savour and dignity, and therefore we have an occupational therapist with voluntary assistants of a high order ...."
(Dr. E. Wilkes, Medical Director of St. Luke's Nursing Home and Professor of Community Care,Sheffield, in: "British Medical Journal" 1973, I, 5844, 6 January 1973. pp. 32-33.)

"The lack of the stimulating influence of daily work, of contact with work mates, of the various events occurring at the place of work, generates a feeling of loneliness and social uselessness ... According to our findings ... the mental state of the socially active retired is much better than that of the inactively retired." (Dr. Alexandru Ciucă; Director, Institute of Scientific and Social Research, Bucharest; in: World Federation of Occupational Therapists: "Proceedings of the Fourth International Congress, London 1966", p. 277.)

"And only The Master shall praise us, and only The Master
shall blame;
And no one shall work for money, and no one shall work
for fame,
But each for the joy of the working, and each, in his
separate star
Shall draw the Thing as he sees It for the God of Things
as They are."
(Rudyard Kipling: "When Earth's Last Picture".)

There are people to whom their work is their life. There are others who wait impatiently for the day when they can at last cast aside the shackles of what they regard as a curse. Others again, feel ambivalent about it. In the same individual the attitude to an inevitable retirement changes, in many cases very radically, as the critical date of his own retirement approaches. What may have seemed a welcome relief at a distant prospect, often becomes far less attractive as the date comes closer. Policy makers, in their prime of life, may do well to bear in mind this point.

Ambivalence to work and to giving up working is probably the most common attitude. The subject is of such basic importance to retirement policy and to questions of human ageing that it deserves much more intensive investigation than it has received hitherto or than we can give it in this study.

There are none the less four aspects that need to be referred to in this chapter, in the hope that this will stimulate further study:

First, the ambiguity of the word work; secondly, the origins of this ambiguity; thirdly, the incongruity of eliminating people from work, only to find some years later, after they have become incapacitated, that large resources have to be devoted to occupational- or, as it is now often called, "ergotherapy", to restore them to some semblance of normality; and lastly, the kind of work that an increasingly mechanised and semi-automated society can make available to those of the retired who have been deprived of it, but need it desperately.

For very many people, work provides anything but dignity and meaning to life. Their work is irrelevant, dull, boring, deadening, even dehumanising. Others - one suspects, only a small minority - live for their work. To them it is a vocation, a calling, a challenge having an intense positive meaning. It gives them a sense of purpose. But however we feel about it work is central in our lives, if only because we spend so much time preparing to make a living and then, when we take a job, travelling to and from it and working.

Work has another significance too. One of the first questions we ask when we meet someone is: "What do you do?" meaning "How do you earn a living?"

We ask because the answer tells us about his "worth", his place in the order of things in our societies. If he says "nothing" he is classified as nothing. Our job therefore affects our feeling of self respect. Few people are strong enough to ignore the estimates of others of their worth.

Once again, after an interval of only relatively few years, questions of unemployment are widely debated. There is once more widespread fear that work may never again be available for all who seek it.

It may have been noticed that if we use "work" in the sense we have done in the preceding paragraphs, we are restricting severely the meaning of the word and narrow it in fact to that of employment. And employment, to very many people, means nothing more than an oppressive chore that has to be done for the pay it yields, as often as not, only because of cultural and economic constraints imposed by a man's status and for the sake of his family.

"Work" as used above may be defined as activity involving mental and perhaps muscular effort to produce services or goods which are valued by others and are therefore rewarded by a wage or a salary. The last phrase in this definition suggests that a distinction should be made between "work" thus defined and work in the full sense.

The essence of "work" in the restricted sense is income-producing activity; and this means now for most people employment. For, in the course of the past century or so, the ratio of the self-employed to the wage and salary-earners has been more than reversed in the industrialised parts of the world.

The significance of working for someone else lies in the fact that it brings about as a rule a fairly sharp distinction between private and working life: a man sells a part, but only a part, of himself for a more or less fixed income.

The growth of the various social security schemes to "replace" income for periods when a man cannot, or should not work - because he is judged incapable of working properly or because he is judged to have earned a right not to work any more, or for a time - coincides with the trend towards wage-paid and salaried employment. The systems of redistributive taxation developed also, as we have seen, during the same period. There too, the principle was sometimes at the outset, or later became, to bring income up to a certain level, but a level usually a good deal lower than what a man might obtain by "work".

Gradually, but only very gradually, the traditional link between "work" and income was broken. It began to be conceded that a person's, a family's right to an income need not always depend on the production of goods and services for which others were willing to pay. The next step, an unequivocal commitment by society and its institutions to ensure that every individual actually receives an adequate income, and by right, is as yet ruled out by many as being utopian, or founders on the rocks of disputes about "adequacy" and "incentives" to "work".

Only poverty and starvation will make a man work, says the incentive theory in its crudest form, hardly ever openly expressed nowadays. The corollary is that when he is beyond working age he will go and claim what is due to him by right in the "welfare state". Yet the facts show, as we have seen, that tens of thousands of people don't. "We're not scroungers", was the comment of an old lady who was shown an advertisement explaining that she was entitled to a rent rebate. This kind of "incentive" theory shows that large numbers of people in the "acquisitive society" behave in a most "unacquisitive" way.

It takes a bold imagination to envisage how this economic incentive approach to work might change, if it were true, as some allege it already is, or soon could be in some places (making due allowance for the risks of extrapolation) that all our needs could be met by a total number of people amounting to no more than only one in five of those now "working".*

By contrast to the economic meaning, work in the wider biological and physiological sense is equivalent to purposeful and sustained action. The difference becomes clearer by contrasting work with its opposite. Whereas "work" in the narrow economic sense is the antithesis of idleness or of work that is economically unremunerative or disinterested, work in this broader meaning is the opposite of inactivity, free from any moral connotation. Working in this sense means functioning. Organisms which have ceased to function may be dead, dying or become atrophied. Higher organisms, even in sleep or during hibernation, continue to function. To deny them the possibility of functioning is equivalent to killing them. Seldom, if ever, has any job that is within the physiological capacities of the organism killed a man. On the contrary, although it may fatigue him it imparts vigour to his body.

People tend to act as if the body had a fixed store of energy. They assume that therefore an old person could eke out his personal store by taking things easy, i.e. not working (in the physiological sense). Gerontological biochemical work suggests that this is an illusion. To keep an old person well he has to be kept working. Activity and movement create the energy the body needs.** Since radio isotopes became available and made it possible to trace how the body manufactures substances like amino-acids, biochemists have known that the worst thing a person could do is to take things easy and not work, in the physiological sense. Much of what is taken for normal ageing is in fact pathological ageing, as impressive gerontological experiments in the Soviet Union have shown.

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* Herman Kahn maintains that all of America's wealth is produced by only 20 per cent of its people. A British Symposium in 1973 on "The Computer in the Year Two Thousand" suggested that by the end of the century there might be left "... a small minority of the population, probably between 5 and 10 per cent, comprising the scientists, technologists, educators, managers and planners upon whom the smooth working of a society based on the extensive use of computers would depend". Kahn's view about present-day America is debatable. The forecast for Britain is of course subject to all the qualifications that such extrapolations always are. But it is probable that there are in many industrial countries at the presenttime already many people functionally unemployed for most or all of the time. They might be in the armed forces or in munitions works if there were a war. Now they are in jobs in offices and factories. Parkinson's law accounts for much of their time. To the filling of forms and classifying them, there is no end.

** Cf. Gore, (Dr.) Irene: Age and Vitality. London, Allen and Unwin, 1973.

Work, in the psychological sense, is a function of the sense of satisfaction it gives the person who does it, and of the recognition accorded him by those for whom he works. Thus, the emphasis is on satisfaction which is derived from meaning and achievement, that is from worth-whileness. This element may be completely lacking in "work" as understood in economic contexts. Such satisfaction may come directly *from* the work or only from the reward a man receives *for* his work. The payment he receives may or may not provide him with this satisfaction. The distinction between the *rewards for work* and the *rewards of work* is important.

Those who have looked at work from the angles of psychology, psychiatry and social and preventive medicine stress an aspect of work which is particularly relevant in the context of ageing and retirement. In his essay on "Das Unbehagen in der Kultur" (1929), later translated as "Civilization and its Discontents", Freud observed that

> "... Laying emphasis on the importance of work .... attaches the individual more firmly to reality ... than [any] other technique for the conduct of life; for his work at least gives him a secure place in a portion of reality, in the human community. The possibility it offers of displacing a large amount of libidinal components, whether narcissistic, aggressive or even erotic, on to occupational work and on to the human relations connected with it lends it a value by no means second to what it enjoys as something indispensable to the preservation and justification of existence in society. Occupational activity is a source of special satisfaction if it is a freely chosen one - if, that is to say, by means of sublimation, it makes possible the use of existing inclinations, of persisting or constitutionally reinforced instinctual impulses."*

It is the emphasis on satisfaction, Freud's "libidinal components", and on the human relations which give man, through work, a secure place in the human community that distinguish this approach to work. Freud's writings on this subject were, later, followed and elaborated by others in the human sciences. Freud did however realise that work was not appreciated by all in this broader sense, for he added

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* Freud, S.: *Standard Edition of the Complete Psychological Works* (translated from the German by James Strachey) London, Hogarth Press, 1961. Vol. xxi, p. 80.

> "... And yet, as a path to happiness, work is not highly prized by men. They do not strive after it, as they do after other possibilities of satisfaction. The great majority of people only work under the stress of necessity, and this natural human aversion to work raises most difficult social problems."*

Freud recognised by this afterthought that many people think of work only in the narrower sense in which economists use it. Many later behavioural scientists have insisted that work be looked at in its full sense. They emphasise its importance for channelling aggressive and other impulses, strengthening esteem and self-esteem, and establishing communications with others and an individual's own identity. They have noticed that when a man is removed from the environment of work he tends to feel lost and isolated. Many have postulated that work enables man to avoid boredom and introspection or, in the words of one behavioural scientist, "if we fail to kill time, it will kill us". Hence retirement has seemed to many pensioners as if life ended. It proved their undoing. And because it does not kill them outright physically, absence of work in this broad sense can cause the retired great misery and consequently affect also the entire community. Work or for that matter the ergo therapy applied to the victims of industrial society, at advanced ages, helps to establish identity or to re-establish it. A psychiatrist said people came to him

> "... to establish an identity rather than to be helped for a known psychopathological syndrome. They say, 'I wish to know who I am' rather than 'I am nervous and sick'."

He was speaking of his middle-aged and well-to-do clientele. Geriatricians find a syndrome that is not fundamentally different. The basic trouble is well summed up by a young worker who said

> "I work in an office. For eight hours a day, five days a week. I'm the exception to the rule that life can't exist in a vacuum. Work to me is a void, and I begrudge every precious minute of my time it takes. When talking about work I become

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* ibid.,(p. 80)

> bitter, bloody minded and self pitying and I find it difficult to be objective. I can't tell you much about my job because I think it would be misleading to try to make something out of nothing."

Contrast this view of work with another:

> "I have not a moment to myself. For the past month I have been up to my neck in work and business. The older one gets the more one needs to keep busy. Much sooner die than drag on in unsavoury senility. Working is keeping alive. Up to one's last breath one must go on fighting against nature and fate and never dispair of anything until one is stone dead. And if I were 80 I'd still go on improving my work. I do not have the tough obstinacy of old people. I am as supple as an eel, lively as a lizard and move about like a squirrel ..."
> (Voltaire, at the age of 77, in a letter to Olivet, 1771)

Work itself differs greatly, people's attitudes vary widely and so do temperaments. But, what is more, the same person's attitude, even to more or less similar kinds of work, sometimes changes greatly with age and circumstances.

There is however in most of us an ambivalence to work. This is partly accounted for by the different meanings attached to a word so frequently used in every-day speech, and so often without precise definition even by scientists.

Even though the idea of work is nowadays most commonly used as vaguely corresponding to employment, its other connotations are scarcely ever entirely absent. It would indeed be absurd to say that the hard work of the housewife or the mother, and all the services people render to each other which are not "work" in the economic sense of the term - many of them hard physical work and/or requiring intense personal effort - were therefore not work.

This view isin no way in conflict with the idea that it is possible to establish a hierarchy of work. An Oxford economist, J.A. Hobson, did this sixty years ago. Others have attempted to do it again later. Hobson tried to relate satisfactions derived from work to pain incurred in doing it.* In Hobson's scale the arts ranked as the highest form of work because they "enhanced the quality of life", as he puts it. The further one went down in his scale the more the human costs became until, with labouring and repetitive activity, one reached a level of oppressive burden, a "maximum of human costs and a minimum of human utility".

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* Hobson, J.A.: *Work and Wealth*. London, Macmillan, 1914.

The confusion and lack of clarity about the meaning of work in no way lessens the need of older people for "work" in whatever form may be available but ideally work in the fuller sense. This discussion will have shown that much of the disagreement about the significance of work is due to the wide range of meaning of the concept of work.

The origins of the ambiguity about work become more easily explicable if one looks at the matter historically.

Humanity has long been aware of the economic significance of work. In the old world, Kramer* traces it to the beginnings of history in Sumer, ancient Iraq, where urban life began, and with it the division of labour: that is the beginning of what Toynbee calls the "urban revolution".** Following some three or five millenia after the agricultural revolution - when agriculture had superseded food gathering and hunting - the urban revolution brought with it the notion of employees, that is people employed by others who did not share the cultivation of the soil. The employers lived not as neighbours, but within the walls of the mysterious city. The idea of work became thus associated with remuneration.

Like the Sumerians, the Egyptian, Andean and Central American peasants had to hand over a proportion of their crops to the new urban class of landlord-priests and officials, as indeed peasants have done to this day. Something like three-quarters of mankind live and work still as peasants and are paying for the leisure of the ruling minority who are convinced that they are earning their keep. It is only in very recent times that the peasant majority have begun on any large scale to revolt against working for the leisured rulers.

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* Kramer, S.N.: L'histoire commence à Sumer. Grenoble, Arthaud, 1957.

** Toynbee, A.J.: "Men at Work in the Light of History", in: de Mille, G.E.(ed.) Men at Work in God's World. New York, Longmans, Green, 1956.

Only in our time have the tea, coffee, tobacco and sugar growing peasants insisted effectively on higher remuneration from their much more prosperous fellow workers in richer countries - who had meanwhile improved their lot at the expense of the middle classes in their own countries. It is hardly surprising then that, with such associations, work is regarded by so many people a curse.

The notion of the economic significance of work may therefore be traced back to the urban revolution. We find it in the story of Prometheus who stole fire from heaven to free man from his dependence on nature, in the popular wisdom at the end of Voltaire's "Candide", "... il faut cultiver notre jardin", and in the philosophy of human progress to be achieved by "work", meaning something neatly separated from the rest of life.

The economic function of work is the one most widely and most easily recognised. Most definitions of work refer therefore to this function alone.

Yet in the history of humanity, the emergence of the notion of work and the state of mind it signifies are rather recent, perhaps 5,000 years in the half a million years that humanity has existed. Or, to use another time-scale: if we think of humanity as having existed for 24 hours, the notion of work as an activity in contrast to other human activities emerged only in the last 14 minutes. The notion of work in the modern sense dates perhaps from not more than two centuries ago or is, on this time scale, not more than 34 seconds old.

This time-scale may be useful in that it indicates that it is merely during a relatively short period in human history that men have become conscious of work as being something apart from the rest of their life. It was only when agriculture was placed at the service of a new urban way of life - which we call civilisation - that the idea of work came to be associated with the question of what was a fair division of the total product of society's efforts.

Work under conditions of civilisation raises problems of social justice. And this transfers it from the sphere of service to the community and of religion to that of social discussion and dispute.

Toynbee refers to this as the "deconsecration" of work, and traces it through the long history ofcivilisation. One might thereby explain the association of work with the narrower economic concept of it, as something inferior, to be avoided if possible, or from which to be granted exemption, was a special privilege for the young, the sick and the old.

The social trauma of work is found in the Greek and Roman attitudes to work, derived from barbarian concepts of a preceding Minoan-Mycenean society. Conquests enabled the victors to live parastically on the work of the vanquished, often more civilised and productive peoples. In the highly civilised society of Athens in the fifth century B.C., the humbler kinds of work were regarded as unworthy endeavour, βαναυσικός. vulgar and beneath the dignity of a gentleman and a man of honour. "Work" was done by the conquered peoples, the once free peasants who became slave field hands and slave herdsmen under duress, for their foreign masters. Parallels to this development in Graeco-Roman civilisation are to be found in the Spanish conquests of Mexico and Peru or, in more recent history, in European conquests in Asia and the Middle East.

Attempts to reconsecrate work, to give work its fuller meaning of fulfilment in a social and religious sense, were made at various times. Some failed. Some succeeded, but not for long. The efforts of the Gracchi in the Roman world of the second century B.C. to carry through a radical social change and restore to work a social purpose failed because they ran counter to the economic changes which seemed to make food production on estates by slave labour more economic. The second Roman effort to remove the slavery of work, in the second century A.D. failed because it occurred during the break-up of the Roman empire when civil wars were flaring up.

Mediaeval Christianity, under the guidance of St. Benedict and his Order, in the Middle Ages, tried to restore the social and spiritual purpose of work by teaching that work was valuable only in so far as it ministered to the worker's spiritual welfare, thereby linking the concept of work again with the idea of service. This attempt failed, paradoxically perhaps, because of its success, the incidental economic success which had not been its primary aim. The Benedictine monk worked not for his own material profit but for the glory of God and for his community. But gradually the spiritual and social purpose gave way to the motive of profit, first for the community of monks and later for business as an end in itself. This led eventually to the sequestration of some richer monastries.

A second attempt in Western Christendom to reconsecrate work failed also. The Puritans placed the emphasis on honesty and efficiency. They tried to animate work with a spiritual driving force. Like their predecessors, the Benedictines, the Puritans' attempt failed because of its success. Our industrial economy with its unprecedented material wealth stands as the monument to their success. But this was achieved at the cost of severing work from its earlier social and religious purpose.

If those responsible for devising and applying social policy have all too often proceeded from the tacit assumption that work is inherently a disagreeable necessity and should therefore be shortened whenever possible and compensated as highly as possible, this may be due in some measure to the emphasis given by sociologists to what Durkheim called "anomie", what Marx referred to as "alienation", what Merton described as "dysfunction". All these concepts relate to the employment situation of the factory worker of the early industrial age, who felt increasingly lost and estranged, and powerless to control the machine. It carried over into a later phase, when large numbers of people who had left, first "work" on the land for "work" in manufacture and were then displaced more and more to "work" in what were called "services", mainly in offices and bureaucracies of one kind and another, as new machines and electronically powered devices displaced human physical effort.

But the process of estrangement does not seem to have been attenuated thereby. It is a very costly one, as becomes apparent at a later stage in life. C. Wright Mills has described it well:

> "Alienation in work means that the most alert hours of one's life are sacrificed to the making of money with which to 'live'. Alienation means boredom and frustration of potentially creative effort of the productive sides of personality. It means that, while men must seek all values that matter to them, outside of work, they must be serious during work."

And as people age, and perhaps have amassed the money "with which to live", they may well have lost the capacity to do so, as a result of alienation.

With the advance of industrial society and the alienation of man from his work through mechanisation, specialisation and bureaucratisation, man's work has come to depend more and more on what D. Riesman has called "other-direction" (as distinct from "tradition-directed" and "inner-directed" man), that is manipulation of people by others: instead of it being related to the physical environment, work came to be dictated by an enforced conformity to the expectations of a bureaucratic "machine".

A new sociology of work is very slowly taking shape which aims at clarifying the significance of work in the proper sense of the term, for the health of man and society. While recognising that "work" continues to be a sheer economic necessity, it looks at the psychological and physiological aspects as well as the economic ones, and is beginning to provide new concepts and analytical tools.

The wider functions of work are brought out by anthropological studies as well as by historical investigations and sociological analysis. These are complementary. Historical investigation shows that the association of work with gainful employment is relatively recent, and social analysis brings out the causes of estrangement of workers. Anthropological studies among peoples at different levels of social development in our own time make it possible to see in some detail the many functions work fulfils. Such studies made in unfragmented, holistic, primitive societies, for example in small Polynesian islands among peoples who do not have money as a means of exchange, show the social and psychological importance of work in the lives of these communities. Work there is not divorced from the rest of life.

There is of course the immediate need for food and clothing. There are also other less personal, but not less pressing, needs, such as producing things for ceremonies, feasting and gifts for marriages, funerals, initiation and other religious and social occasions. In such societies work for food and other necessities produces material rewards also in a less direct way. Anthropologists report how such "primitive" peoples work for what they call "tags of achievement".

Boasting about such achievements is not only allowed but encouraged. But people boast not about their wealth as such but rather about what they do with it. The opinion of others gives value to simple tokens.

Such societies are characterised by complex schemes of services. Work is as much a social as an economic service. Hence the employment relationship is reversible. A man who employs another one day may be a worker the next. Religion and magic play a vital role. Days and periods are set aside when no work may be done, holy days when work is forbidden.

If we follow the anthropologists from their study of these very simple to the peasant societies - which stand half way to our own very complex ones - we find that in peasant societies economic ties are highly personal. People attend one another's feasts and contribute cheerfully to the cost because of the close relationships existing in many such communities. Work and the use of wealth are subject to social sanctions by the community. A crisis occurs in peasant societies when wants expand and when these communities must measure their performance against that of other producers. But it is clear that one cannot apply individualistic principles to peasant societies. No individual would normally separate easily from the rest. Man's relation to his work and his leisure is part of the same picture.

Perhaps such anthropological studies of work in our industrial societies would help us understand better the functions work fulfils. Industrial society, despite its size, its mechanisation and its division of labour and the mechanical response which it evokes, has not done away with the need for human response. Material income appears to have become the first incentive and money its commonest form; but the need for physical and mental activity is as great as ever. The need for recognition and prestige, the desire for companionship are all part of the general need for emotional response. What anthropological studies bring out so well is that an essential element in work is its function of giving the person who works the sense of a prospect of helping in a common aim, wider than individual material needs.

The narrowing of the notion of work can be seen also linguistically. Many of the words signifying work have acquired in the course of history pejorative connotations, thereby suggesting that work must inevitably be a burden and a punishment, and that it is therefore, by inference, a privilege not to have to do any or, even, not to be allowed to do any.

Whereas the Sanskrit root *rabh* signifies to act with vigour, the Latin word *laborare*, the English word *labour* and the German word *arbeiten* have connotations of energy, fatigue and an undertone of contempt.

The words in the Romance languages, *travail* (French), *trabajo* (Spanish) are derived from the Latin *tripalium* (*tres*, *tria* = three + *palus* = stake), a machine with three stakes on which condemned men were tortured. This notion of suffering is preserved in the English *travail* (suffering the pains of child birth). The English word *travel* derives from the same root. The common origin of travel (English) and travailler (French) is shown in the remark of one of Molière's characters who complains of "les travaux d'un assez long voyage". The fact that the words *worker* and *Arbeiter* have to some extent the same denigrating undertone, accounted for the insistence of clerks and other office workers, in a fairly recent past, on being designated differently by terms such as "staff" or "employees" (English), "Angestellte" (German) - and by correspondingly differentiated occupational labels in many languages.

This perhaps rather summary attempt to explore the meaning of work is no more than a beginning of a study that deserves to be pursued. It belongs very much into the gerontological context. We need more detailed and scientific evidence that work that is not rewarding of itself and, by its very nature, fails to provide the worker with satisfaction, alienates, frustrates him, makes him feel powerless and apathetic, accounts for many of the symptoms of pathological ageing in the same individual later.

Many people, especially people professionally concerned with geriatrics and gerontology, have been impressed by the fact that work in society is organised in such a way that a proportion of those who work become victims of the system, incapacitated, physically or mentally, or both, even before they reach the age at which they become entitled to an age or retirement pension, and many others wait impatiently for the day when they can stop work. What seems particularly incongruous is that, after retirement, many of those who are ultimately admitted to geriatric wards or geriatric hospitals have to receive ergotherapy, that is, work has to be found for them as a health restoring activity. It is only at this stage in life that work is looked at as it should have been looked at earlier: from the angle of giving people work that accords with their physical and mental capacities and potentialities. It is only at that stage in life that it becomes clear how costly was the process of taking work as given and forcing people to adapt to it.

An industrial medical officer once said that data were needed which would enable a doctor to prescribe work for older people in much the same way as he now prescribes drugs or treatment. A.T. Welford, who reports this comment, adds that it is fair to say that a foundation already exists on which such an "ergopoeia", analogous to the pharmacopoeia, could be based.

If, as one geriatrician declares, 15 to 20 per cent of people over 65 in a major industrial country suffer from bad mental health - one third of them to a degree where they require treatment in institutions - can this be wholly unconnected with their occupational history before they reached that age? The same geriatrician said he simply did not know how the rest of the 15 to 20 per cent managed to carry on outside institutions. Every third bed in a psychiatric hospital, he said, was then (in 1972) occupied by a person over the age of 65. Are these people simply exhausted by the work they did all their working lives? More factual information is, clearly, needed on this subject even though a firm causal relationship may not always be easy to establish.

If mechanisation and the degree of semi-automation reached in many industries enable society to produce more with less human time spent on the process, is the only rational way to use this advantage to shorten working hours, working weeks and working life, pay more money for work (and also for retirement), but leave unchanged or worsen the conditions and the rhythm of work that produce premature and morbid ageing?

Schelsky speaks of the "critical generation", to be found now in all industrialised societies, who question the sense of making people do work they dislike intensely. The people who question this system of values are to-day's adolescents.

Their attitudes now when they are still young will determine their attitudes to retirement when eventually they can leave the monster concerns and bureaucracies employing them in youth and middle age. Their health, a generation hence, will almost certainly be largely determined by their experiences in the remaining quarter of this century.

Industrial man wants to live long and forces society to exercise death control. He asks for more medical attention; and social security gives him access to it. The state, the doctor, the chemist, the pharmaceutical industry are to guarantee him health. But whether the problem can be solved in this way without fundamental changes in the organisation and attitudes to work and to life of people at younger ages seems questionable. Statistics of absenteeism during periods of full employment, of strikes and industrial disputes and other indicators of unsatisfactory ways in which industrial society organises some of its work suggest that the relations of vast numbers of people to their work, in the prime of their lives, need to be looked at with a view to drastic changes.

Is this really only a matter of longer breaks, of sabbatical years, a year of relaxation every seven years, or a year after five times seven years as existed in biblical times? In a very few professions such practices exist. In most occupations no such arrangements are even contemplated. And, desirable though such breaks in working life certainly would be, it seems hardly likely that they would come near the root of the problems.

Schools, and the family, and other institutions socialise the young, help them to develop autonomy, initiative and industry, decency in human relations, help them to develop skills, acquire knowledge of facts. After that adolescents are abandoned to the industrial system, to "work" in the economic sense described above; and then, much later, geriatrics is given the task of trying to re-socialise those who have broken down. For the old must get very sick before they receive geriatric treatment, unless indeed they are very wealthy. The work that ergotherapy designs for geriatric casualties is in most cases fundamentally different from the "work" these aged patients did before they broke down. It is carefully designed with physiological and biological needs in mind.

But we must be careful not to describe this process as "rehabilitation" as Ursula Lehr points out.* Of course, geriatricians and gerontologists do in fact so describe it. But in social and social security contexts, rehabilitation is generally confined to

> "... reintegration into an occupational or social environment from which the patient has been detached by sickness or accident, and to which he is not able to return immediately after completing the medical treatment in the strict sense, owing to persistent consequences of his illness from which he continues to suffer or is only slowly recovering."**

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* The notion of rehabilitation, originally a legal one, found its way into medicine in the middle of the nineteenth century. It seems to be referred to for the first time at about that period in medical text books. In Germany it came into general use in connection with sickness and accident insurance for employed people of working age as a result of the legislation on these subjects, in 1884.

** "Unter Rehabilitation versteht man die Wiedereingliederung in ein berufliches und soziales Bezugssystem, aus dem der Patient durch Krankheit oder Unfall herausgerissen wurde und in das er, wegen mehr oder weniger langsam sich zurückbildender oder bleibender Krankheitsfolgen nicht unmittelbar nach Abschluss der medizinischen Behandlung im engeren Sinne zurückkehren kann." (Deutsche Zentrale für Volksgesundheitspflege, Annual Congress 1973).

Ehrhardt observes that as long as rehabilitation remains restricted to dealing with younger occupationally active people below retirement age rehabilitation (in the gerontological sense) of the old is relegated to a distinct and second rate kind of treatment.

But there are strong arguments - and they are being used - to make rehabilitation accessible to people so severely handicapped that it is unlikely that they will ever be able to return to their former occupation. German social security institutions argued that suitable work should be found for such people to give them new courage.*

Many gerontologists have found that the occupations older people should be encouraged to take up if they wish, after retirement, are different from those in which they were employed before retirement in very many cases. Such gerontological judgements, it should be hardly necessary to add, are not determined by economic considerations.

A recent American inquiry entitled "Work in America", commissioned by the United States Department of Health, Education and Welfare, concluded that 57 per cent of American "white collar workers" and 76 per cent of American "blue collar workers", if given the choice, would not, themselves, choose to do again the jobs they had done before.** The report blames corporations who had employed the people interviewed, for the widespread dissatisfaction expressed and proposes that perhaps the criterion of "industrial efficiency" ought to be replaced by one of "social efficiency". This tallies with the comments of other observers that "the very high personal and social costs of unsatisfying work should be avoided through a redesign of work".

The right of retired people to have a satisfactory role in contemporary society was affirmed by the Council of Europe in a resolution (No. 16) adopted in 1970 and recommended to member governments. Statements of this character, couched usually in very general terms, have been made by many national and international bodies.

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* Verband deutscher Rentenversicherungsträger, Annual Report, 1969.

** This subject is referred to in the context of opportunities of work for the retired who feel they need them, on page 233, below.

Clinical gerontologists and geriatricians have gone on record on many occasions with statements such as that

> "There are many professions and jobs that are not so physically demanding that you would have to expect a person to have to retire at 60 or 65."

But what activities and occupations are in fact open to retired people as things are to-day?

In examining the practical possibilities and the kind of work that an increasingly mechanised and semi-automated society has available for those of the retired who want to work we must start from a realistic appreciation of a social (not biological) fact.

This has been stated with remarkable clarity in his chapter on "The Retirement Problem", in a book in which the possibilities were examined by means of field research and interviews, by F. Le Gros Clark:*

> "... for large numbers of men, the life span beyond 65 or so, now comprises not one but two definable phases.... When men have reached their mid-sixties a noticeable and increasing proportion of them no longer meet the tests of working effectiveness imposed on them by modern industrial conditions.... Such men have to relinquish their jobs or moderate their efforts..... The second turning point is reached only when a significant proportion of elderly men begin to need constant aid and support from members of their households and/or the Health and Welfare **Services.**"

Le Gros Clark observes that it is rare for a man to be precipated out of his working life into immediate and complete old age. For the intermediate period between "working life" and what he calls "true old age" - for which the term "elderly" has been suggested** - he sees a danger of it being left as an "unconsidered limbo", "an extended no man's land", an age when many are not really elderly in a physiological or psychological sense. It is in this intermediate period that men feel they are being thrown on the scrap heap or, in Shakespeare's more **poetical** phrase, 'unregarded in corners thrown'.*

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* Clark, F. Le Gros: Work Age and Leisure. Causes and Consequences of the Shortened Working Life. London, Michael Joseph, 1966.

** At a seminar of the World Health Organisation at Kiev in 1963, it was suggested to describe people with a chronological age of 60 to 74 as "elderly", those aged 45 to 59 as "middle aged", those of 75 to 89 as "aged" or "old", and those over 90 as "very old". But one is inclined to agree with Le Gros Clark that neither "elderly" nor "young old" are adequate descriptions for the period in life between "middle age" and "old age".

Le Gros Clark refers to medical evidence showing that old age, as he defines it, begins for a large proportion of men** in the middle seventies. The point which Le Gros Clark and many other gerontologists make is that the health of people in the early years of retirement is, for many of them, unimpaired, notwithstanding earlier industrial experience. Many are still mobile, competent and active minded. But not a few become restless and ill at ease after the disturbance of their normal rhythms of life resulting from an abrupt ending of regular work.

Leaving aside the question of "medical evidence" - which requires much closer examination - the capabilities and capacities of people above the age at which they may draw a pension, is a matter of the reputation of capacities for work, the image of these capacities in the minds of managers, foremen, in fact of society as a whole. In this discussion it is to be understood that we are concerned only with people who want to work, and that for reasons which are not inspired by economic necessity alone. The need for providing adequate income replacements at retirement is beyond question.

The reputation, the stereotyped image of the older person's employability, his or her capacity for work and of the older person's general alleged characteristics is in fact the main obstacle standing in the way of finding work.*** The "decline of working capacity" has become a kind of slogan, uncritically accepted widely. Pseudo-scientific statements, some emanating from medical sources have in no small way contributed to building up this image, as Blume[*] and other gerontologists have shown.

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* "As You Like It", Act 2, Scene 3.

** F. Le Gros Clark's case study is confined to male manual employees or ex-employees of manufacturing industries, from the age of 60 upwards.

*** It is remarkable though how such images can change, given the appropriate degree of economic pressure and labour shortage. A manager of a coal mine - an industry suffering notoriously from shortage of skilled labour - declared recently that it was no longer true that men over 55 (the retirement age in that industry in his country) could not work more efficiently than younger men.

There are great differences among managers, supervisors, foremen in different departments, undertakings and industries, towards the older worker. One has to remember also of course that industrial managers, etc., and trade unions as such, do not have responsibilities for people who have already retired because of age or chronic incapacity. Managers may, as Le Gros Clark points out, admit individually, or even collectively, to some residual obligation for the continued well-being of people who have left; but in practice they can do little to implement that obligation, beyond undertaking to pay them an industrial pension.

It is noteworthy none the less that trade unions, in some countries, assist retired members to obtain seasonal work, part-time work and, here and there, share with voluntary agencies responsibilities for creating opportunities for retired members or ex-members to do social or constructive work of some kinds. This does not in any way detract from the fact that the major responsibility is that of the community as a whole, through parliament or whatever legislative and administrative bodies there may be. [**]

Statistical evidence showing high rates of unemployment among older workers should not be used to draw conclusions as to older people's employability or capacities for work. Such unemployment is attributable rather to social factors, not least to the image that has been created of the reduced capacities of older people for work.

In view of prevailing unemployment among school leavers and other groups of young people, the older worker approaching the age when he will have the right to a pension is likely.to be the first to be dismissed,"retrenched", made "redundant" when mergers, measures of "rationalisation", reorganisation of production or similar causes lead to reductions in numbers of people employed.

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[*] Blume, O.: "Problematik von Aussagen über ältere Arbeitnehmer im Betrieb", in: "Aktuelle Gerontologie", No. 2, 1972. pp. 103-119.

[**] Le Gros Clark advocates, on the basis of a nation-wide British survey - Clark, F. le Gros: Pensioners in Search of a Job. London, Pre-Retirement Association, 1968 - that the task of finding part-time work for pensioners should be done by voluntary associations of private citizens, aided by government subsidies.

The fact that younger and less experienced labour is cheaper is also not without significance. As forworkers already receiving a pension or those who become entitled to an early pension, because of their age, on losing their job, the force of such arguments will be the stronger. Lower "labour force participation" of the older is therefore no indication of reduced capacities for work.

Large numbers of studies exist in which "job requirements" and performance of different age groups are related for particular occupations, average ages of people working in the occupations, and in which views of supervisors and workers on the subject are recorded. Far reaching generalisations are made in such studies about attentiveness, concentration, speed of work, sickness records, accident proneness, etc., of the older person at work. Results vary widely, and partly no doubt as a function of the investigator's bias.

Much more significant is the fact that in the major traditional liberal professions, dentists, physicians, surgeons, clergymen, pharmacists, lawyers, judges, politicians, people work right up to what was called above 'old age'.* In fact 'old age' as there defined may well be postponed by this very fact.

Perhaps the foundations of the stereotype of the older person's capacities should not be dismissed lightly. Socio-economic conditions of productivity changes with increasing age were analysed systematically by A. Tröger on the basis of case studies, carried out only a few years ago in the German Democratic Republic. His and Eitner's studies seem somewhat more scientific than many others in that methods of factor analysis were used in which physical and mental characteristics were not treated as independent variables.**

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* An interesting exercise would be to work out the average age of the heads of state of the world's 150 or so nation states. As far as is known this has never been attempted.

** Tröger, A.: "Die Konfrontation des alternden Menschen mit dem Phaenomen der hohen psychonervalen Beanspruchung unter den Bedingungen des Strukturwandels der Produktion", in, "Zeitschrift für Alternsforschung", 1971, 103, ff., and, Eitner, A. and Tröger, A.: "Soziale Risikofaktoren im Aspekt der geronygienischen Konzeption", ibidem, 1968, pp. 1-19.

In regard to physically demanding work - which is of course on the decrease - Tröger, Eitner and their colleagues point out that inferior conditions of health found among older as compared with younger people at work may be explained partly at least in terms of conditions of life virtually unconnected with job requirements.

Accident proneness of workers of different ages has been investigated by a few gerontologists. Here, interesting comparisons are possible between accidents of different age groups at work of comparable types, and also in traffic, either as drivers or pedestrians. It would seem that there are significant differences. But the subject would need to be explored further.

In comparisons that have been made about absenteeism among older and younger people at work, the older show on the whole better records. But such a factor is particularly unsuitable for comparisons of this kind because of the wide range of dependent variables such as motivation, temperament and living conditions, which are liable to distort the picture greatly.

It is worth noting that most of the inquiries comparing younger and older people's performance at work deal with males and with workers in manufacturing industries.

The subject of women who wish to return to work at ages near or past retirement age is more complex even than that of men working past retirement age. It has been investigated less, perhaps for that reason. Generalisations about age-determined variability of performance would sound even less plausible. Women re-entering an occupation in which they were once active would probably show differences according to the length of time for which their occupational activity had been interrupted. In cases where they prepare for and take up a new activity, this factor would probably be less important. Motivation, such as taking up work for purely therapeutic reasons or to counteract isolation, on the husband's death or the children's departure, may well be more important.

Social status of the work taken up at higher ages must be a factor, one would assume, in the cases of both women and men. Personality characteristics and the reactions of the immediate (family) environment, and of society as a whole, must undoubtedly contribute to making work at post-retirement ages a success or a failure. All the evidence we have seen suggests that generalisations about success and failure of older people resuming work are extremely questionable because of the very great individual psychological and other differences which enter into the picture.

Le Gros Clark, in the study referred to earlier, has tried to explore systematically, at least for retired male workers, formerly in manufacturing industries, the possibilities there might be (in England in the mid sixties) for work after retirement, in places other than their former work places - having previously come to the conclusion that the possibilities in the former work places were negligible.

He considered five such possibilities:

1. "Out-work" contracts negotiated with various manufacturing firms;
2. Direct employment by industrial firms in "sheltered" workshops;
3. Arrangements with institutions for small equipment and other requisites to be produced for them by groups of retired men;
4. Domestic repair and servicing jobs, on the assumption that retired men could carry out such work in an organised way; and
5. Voluntary social work in the health and welfare services, on a basis of guaranteed expenses.

His conclusions are not at all encouraging. He reports a number of model and experimental schemes which had not gone beyond a pilot stage. The first of the possibilities mentioned, (1) above, seemed to have a very limited potential because sub-contracting was declining in both quantity and range. Such possibilities as it offered to retired men were in competition with institutions such as prisons, mental hospitals, institutions for the handicapped, etc.; (2) he thought was not likely to be viable, although he saw some limited opportunities for what he called "nuisance jobs" such as repair of tools, "scrap recovery". He mentions that a dozen small sheltered workshops existed in Britain, in 1966, and one or two in France and Holland; for (3) he saw limited possibilities for such activities as making toys for children in hospital wards, plastic souvenirs and the like; as to (4), while there might be a market of unknown size, there was competition from younger employed people who did these jobs in their spare time. He felt doubtful about this as a possible avenue for development. The last possibility mentioned, (5), was also subject to competition: an unsatisfied demand existed undoubtedly, especially for the "younger old" to provide services for the "older old", as long as the social services remained as undermanned as they were. Such work required some training; but there was no reason why that should be an obstacle.

The picture is perhaps unduly pessimistic. And Britain was perhaps not the best place to explore the possibilities because of the earnings rule. Information that was completely reliable might therefore not be easy to obtain; and experiments might not be encouraged, in any case, by provisions of that kind. One would imagine none the less that the possibilities mentioned, and others too, would be worth exploring further in various countries.

Retired people themselves, individually and through associations, have endeavoured systematically to explore opportunities of work open to them. On the whole they have arrived at conclusions largely but not entirely negative.

Possibilities of finding work may well be limited, as Le Gros Clark suggests, and confined, in the main, to what he describes as "light" work. It may well be true that the retired come up against competition with the younger, temporarily disabled people, and that the amount of work of the kind the retired want is relatively limited. But this cannot be stated with any degree of certainty until the subject has been further and more systematically studied. It seems that employers have in the past reserved a high proportion of what little work of this kind they had available for convalescing employees below pensionable age, whom they hoped soon to reintegrate fully into their enterprises, i.e. reserved for rehabilitation in the traditional sense.

Le Gros Clark found, in 1966, that "light" work was not only scarce in relation to the increasing number of applicants for it - about 2 to 4 per cent of all work in the industries he examined - but "almost certainly contracting".

This result would seem surprising in view of the increasing need for services of many kinds. But it is less surprising if one considers that it is largely a matter of costs. For the individual undertaking, it may not be very economic to set aside jobs or to create openings, to suit the requirements of older people who may want to work part-time, perhaps at a reduced pace and in a different way. Socially, the cost of *not* making provision for retired people who want to work is almost certainly very much higher.

Further investigation of this subject would be well worth while.

Interesting experiments have been made and are occasionally reported on.

One such experiment is a part-time re-employment bureau for the retired, inaugurated in Scotland by the Glasgow Retirement Council in April 1967. It consisted of an office, open every afternoon during the week, in the centre of Glasgow, staffed by volunteers in the older age-group who, in Professor W. Ferguson Anderson's opinion, "have themselves benefited greatly from the work".* Unemployment was high in Glasgow at the time, 5.9 per cent, and great difficulties were forecast. No one concerned with this venture doubted that many retired men and women would welcome part-time work. Indeed, 1,184 retired men and women applied to be registered. Their former occupations ranged from company directors and professional work of various kinds to so-called "unskilled" work. Those formerly in more responsible positions were well aware that they could not expect to find work with similar levels of responsibility. In any case, they did not want jobs which caused them worry. They were willing to work unpaid for charitable organisations, but wanted to be paid if they worked for a commercial enterprise. Trade union officials welcomed this endeavour. Between 1967 and 1971, 537 retired people were found part-time employment by this Bureau: 95 men and 26 women in clerical work, 46 men as messengers, 20 men as handymen, 20 for security work, 13 women as companion helps, 8 as book-keepers or cashiers, etc.

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* W. Ferguson Anderson (Professor of Geriatric Medicine, Glasgow): "Aspects of Geriatric Care", *in* McLachlan, G.(ed.): *Patient, Doctor, Society. A Symposium of Introspections*. Oxford University Press (for the Nuffield Provincial Hospitals Trust) 1972, pp. 101-112.

Another experiment is an Old Age Pensioners' Employment Agency set up by a pensioner of 68, at Stevenage in England. He tried, unsuccessfully for two years, to establish such an agency, succeeded in 1972 and, within three months, found jobs for 80 members of the local "Claimants' and Pensioners Welfare Association".* One suspects that many of the pensioners in this instance were looking for jobs for economic reasons, that is because they found their pensions were insufficient. But economic, social and psychological reasons are not so clearly separable.

Another interesting case is that of a retired professor, F.M. Roeterink, who established a factory at Eindhoven in the Netherlands. He set up the factory in 1961; in his own words,

> "... realising man's need to perform a useful function, and work after retirement." Hence his motto:
> "Keep your Health and Strength through Work"

The factory was only for pensioners. Some years ago it employed 200 people aged 65 to 80. They worked three hours a day. Anyone wanting to go fishing or on any other pursuit, on a fine day, was free to do so. Absenteeism, he reported, was remarkably low. The factory manufactured mechanical precision instruments used for teaching in university departments, for museums and similar purposes. It was a cooperative. Yearly earnings were distributed according to effort put in. Advances were paid every quarter. Yet the financial aspect was, emphatically, not the main one. The factory's purpose was to give older people the opportunity of feeling assured they were not useless. Similar experiments are said to have been attempted in Sweden.

Instances are reported of large firms appointing pensioners to keep in contact with other pensioners who formerly worked in the same large group of undertakings. The jobs consisted in helping these pensioners who had

> "faced much the same trauma as they had when the work structure had gone out of lives that had been dominated by discipline and hierarchy."

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* "New Society" (London) 24, 559 (21 June 1973) 686, f.

Some of the experiences make interesting reading. It was found by one such "welfare officer" that money was not the prime problem, but rather loneliness of the very old, and "coping with everyday things". And this referred to a group ranging from former directors to sweepers. Anderson refers also to such retired employees associations where each member was given a prepaid postcard to be dispatched whenever he or she was unwell or in any kind of trouble. The personnel officer of the association and one of the old person's companions would then visit him or her.*

The preceding reflections should not be taken as suggesting that the problems of retired people are not largely economic. But it is certain that they are not exclusively economic. This is amply demonstrated by many surveys:

> "Though money was an important reason for continuing at work, it seems rarely to be the sole or dominant reason. Only a quarter of the men interviewed of all ages felt that financial reasons would compel them to remain, or had done so in the past. Few of the personnel officers were apparently aware of this; for the majority of them were sure that men only continued to work after 65 for the pay packet. It should here be recognised that, when older men apply for a job or ask to be retained, they tend to emphasise their income problems. It is an objective argument; distrust of leisure or fear of being cut off from the working community do not seem to them to be good reasons to put forward when approaching an employer for work."**

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* Anderson, W. Ferguson (Professor, Geriatric Medicine, Glasgow): "Preventive Medicine in Old Age", _in_ Brocklehurst, J.C.: _Textbook of Geriatric Medicine and Gerontology_. London, Churchill Livingstone, 1973. Chap. 21.

** Mrs. K. Wintringham, reporting a survey of several hundred male manual workers, all aged over 55, in the manufacturing town of Slough, Buckinghamshire. Quoted in: Heron, A. and Clark, F. le Gros (eds.): _Workers Nearing Retirement_. London, Nuffield Foundation 1963.

9

Functional Age

What is Functional Age ? Can it Replace Chronological Age ?

> "If you want to know whether to call a thing old, very old, or still young, you should not ask how long it has been in existence but relate it to the time it is still going to last. The same length of time which for some creatures may be called a high age is no such thing for others."
> (Immanuel Kant "Thoughts on the True Estimation of Living Forces", 1746)

> "'Can you do Addition?' the White Queen asked. 'What's one and one and one and one and one and one and one and one and one and one?' 'I don't know', said Alice. 'I lost count.' 'She can't do Addition', the Red Queen interrupted. 'Can you do Subtraction? Take nine from eight'. 'Nine from eight, I can't, you know', Alice replied very readily: 'but - ' 'She can't do subtraction', said the White Queen".
> (Lewis Carroll: "Through the Looking Glass". chap. ix)

Human ageing and retirement, the two phenomena considered in this study one primarily biological, the other social, are, or should be, related.

By adapting retirement - the social and institutional arrangements for the later phases of an individual's life in our societies - to such knowledge as we have of physiological and psychological processes, ageing should become less burdensome for the individual, and for society also.

Age, like so many other words in common use, has several meanings, distinct though not always made explicit. The first meaning of age is simply the time anything has lived or existed. A second meaning refers to changes, such as maturity or decline, associated in living beings with that duration.

Thus, when we call a person aged or old we refer to the second of these meanings, implying an appreciation of the manifestations of these attributes. When we say a man is 65 we refer strictly only to the first meaning of age. But in fact the second connotation is often implied.

Korenchevsky and his colleagues established gerontology as a field of scientific study to explore systematically and methodically the relationship between these two meanings of human ageing.

The distinction between lapse of time and the changes accompanying it in a person's use of innate and acquired capabilities, long pre-dated the history of the human sciences.

The stoic writer, satyrist and philosopher, Lucius Annaeus Seneca (4 B.C. - 65 A.D.) observed in his analysis entitled "De brevitate vitae" that

> "Grey hair and wrinkles should not make you believe a man has lived long, but only that he has existed long. Life is divided into three time spans, the time that is gone, the time that is and the time to be. The time we are living is short, the time left to live uncertain, the time we have lived is certain. The busy man has therefore only the present, which is so short; he cannot grasp it. Life seems long to those who made all this time into one. Those who forget the past, neglect the present and fear the future find life short and full of sorrow. When they arrive at the end, these pitiable people realise too late that they have achieved nothing."

Marcus Tullius Cicero, a great controversialist, lawyer and politician, but also something of a philosopher, almost exactly a century earlier than Seneca, had already defended the older human age against the prejudiced image of negative attributes, current even then. Two thousand years later, that negative image of older people not being able "to make the pace", the impossibility of "teaching old dogs new tricks", was presented in the seemingly scientific terms referred to in the preceding chapter. Cicero, in his "Cato maior sive de senectute" argued, in the form of Aristotelian dialogue, against associating human ageing with inactivity, against a belief that ageing inevitably enfeebled men mentally and spiritually, and pleaded that the old should not be barred from participating in the life of society.

What these ancient writers, and many others after them, were saying in effect was, first, that knowing how long he has lived tells one very little about a man and, secondly, that the quality of a man's later life can be influenced by his way of life.

If marked progress in the study of the physiology of ageing has been slow, and dates really only from the present century, this is partly explained by the fact that, in the past, only a very small proportion of the population lived to be old. Gerontology has sought to distinguish, without much success until very recent times, between degenerative disease and true biological ageing.

E.V. Cowdry, twenty years ago, saw ageing as a "decrease of adaptation, as a consequence of loss of tissue and functional reserves". Gerontological research, since that period, has set out to discover and found some means for counteracting such decline in physiological and psychological functions. N.W. Shock has observed that

> "... there is no evidence that ageing begins precipitously at any given chronological age..." and that, "... there are such wide individual differences in aging in different people that some individuals of 70 may possess the performance capacities of the average 50-year-old." He notes also that: "Although aging and disease are often mistakenly regarded as synonymous, no disease is limited solely to the later years of life. Certain disorders are ... common in senescence ... They arise as a result of many superposed insults, and in no two instances are the causative factors necessarily identical."

Work in molecular biology in particular is showing the existence of processes in the cell which repair damage to D.N.A. and correct errors in the formation of enzymes and other proteins essential to maintain life.

D.F. Chebotarēv stresses in recent writings the need to continue to examine biological, as distinct from pathological, ageing, to elucidate unsolved questions of pathogenesis of diseases of old age.

The notion of functional ageing arose out of observations of the varying degrees of adaptation of individuals and of different organs of the same individual, with ageing. The aim of all concerned with general wellbeing of the human adult as he moves through life is therefore to recognise and combat all influences that reduce adaptability, and to strengthen those which tend to maintain it as close as possible to what it seems justifiable to regard hypothetically for the present as the norm or the optimum level for any given chronological age.

This requires study of why some organisms function above the norm and nearer the optimum while others fall rapidly below. Physical and social pathology are seen by gerontologists as being closely related. Study of the - to the pathologist - less interesting normal human adult, is therefore necessary.

A.T. Welford, one of the pioneers in the investigation of functional ageing, noted in 1958 that almost all the research on this subject

> "... has the depressing characteristic that the changes are downward with the years, and indicate only by implication, if at all, ways in which improvement occurs. Obviously there are ways in which a man or a woman matures and ripens into old age: the difficulty seems to be, however, that these concern subtle aspects of human functioning which have not yet proved amenable to scientific investigation."

He hoped that future research would concentrate more on these; and one hopes indeed still that it will.

An individual's calendar age, that is his chronological age, is unsatisfactory as an indicator of how well an individual functions or how alert he is. A man's or a woman's capacity to do a job is not measured by age. It is recognised with increasing evidence that individuals vary enormously at any given age in respect of almost all human characteristics. Moreover this *variation increases*, as detailed case studies have shown, *as age increases*.* This means, as Welford shows, that

> "... we find a substantial number of old people performing at a level at least equal to that of the average of a group of younger subjects."

If then, as is widely agreed, chronological age is unsatisfactory as a measure of capacity to work or of adapting to "jobs", this makes it necessary to find a more satisfactory alternative based on the actual functioning of the organism at a particular time.

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* Reference should be made in particular to two pioneering case studies: Welford, A.T.: *Ageing and Human Skill*. Oxford University Press, 1958; and Heron, A. and Chown, Sheila: *Age and Function*. London, Churchill, 1967. (esp. Chapter 6: "Functional Changes with Age".)

Generalisations as to an individual's overall functional age - various case studies suggest - should not be based on a small number of unselected tasks. Poor performance at one kind of task does not permit predictions as to performance at some other kind of task. Tasks measuring the same kind of ability may correlate to each other, but factors other than the task alone will produce variations.

Specific functions need therefore to be looked at separately. The basic reason is that ageing is not a unitary process. Different mental and physical changes occur independently of each other. If we must take tasks as given, as seems to be widely assumed in such studies, then functional age needs to be measured separately for each task. In this connection Welford makes the point that

> "... changes of capacity, even in old age, are unimportant ... where age changes do impinge upon performance some relatively trivial factor may often be limiting what can be done, so that comparatively small changes in the task could bring it within the capacities of older people."

Measures of a man's "health" may tell little of his capacity to do a job, unless his condition diverges widely from normal. Many other factors, such as perseverance, sense of responsibility, responses to group pressure, etc., are by no means negligeable.

Attempts to measure men's functional age against performance of their own age group are not easy to make. One might aim at comparing people still doing the job with those who left it because it was "too much" for them. The difficulty in doing this is that there are rarely a sufficient number of people of given ages doing and leaving jobs that turn out to be truly identical.

Welford makes the point that age distribution of people remaining in an occupation or on a job is not a good guide. One would need to look at historical, economic, psychological and other reasons for particular age distributions in particular types of work.

Heron and Chown have worked out detailed norms for the level of performance to be expected from people of different ages. They arrive at a list of 137 variables by which to judge functional age.

They point out that high functional age may be due to only one factor such as defective eyesight, which is easily corrected.

There is no doubt that means can be found to establish biological, psychological, social or functional age of any individual. One can choose what one considers as the relevant functions, apply the appropriate tests and arrive at functional, instead of chronological age. This method can be further refined by statistical weighting of combinations of variables.

In much of professional work it does not matter greatly whether a person is relatively "old" as regards respiratory function or physical strength, as long as his cognitive functions are not "old": in much of manual work it may be more the other way about. By working out perhaps an age profile rather than a functional age it should be possible to find people suitable work in accordance to their needs and wishes.

But suitable jobs are not likely to be available until society decides that chronological age shall cease to be a necessary qualification for work.

It is not really relevant whether the present trend towards more widespread use of electronic devices has the effect of making greater demands, in nervous strain, on those using such equipment, and therefore exhausting their nervous and mental energy at an earlier age. Computers and related input and output devices may give less scope for satisfactory man-machine relations or, more probably, more scope. This is arguable. It is arguable also whether such electronic equipment sets the man free from having the pace of his work set by the tool. But, as long as the establishment owning such highly expensive equipment is convinced that it cannot be entrusted to older people it will not be.

Furthermore, the idea of the "elderly" remaining indefinitely in positions of authority - even with undiminished agility of mind - is not likely to appeal to younger men waiting for promotion, as a British Royal Commission on Population pointed out in 1949. They emphasised likewise that a widely held view among these younger career-minded men is that the weight of the influence of the elderly might keep policy in the trodden way and stand in the way of innovation and change. The obvious counter to this fear was made explicit in the Commission's Report: It is often possible for men to go on working in the same organisation after retirement, in a position of less authority, with a lesser load and with shorter hours. In this way they would not block promotion of their younger colleagues.*

The question is sometimes put who should decide whether a man or a woman should be allowed to work beyond pensionable age: the establishment, the trade union, the doctor or the individual concerned? The question may be relevant but it is rarely put in this form.

The preceding discussion is not about pensions or income replacement determined by age. It is about social and other pressures which have the effect of making it difficult for people to find rewarding work after they reach that age.

The tradition of a more or less rigid retirement age is not readily abandoned by younger men coveting the jobs of the older, by budget planners or by supervisors with fixed ideas about working capacities of older people, derived indirectly from allegedly scientific, psychological studies in the nineteen thirties.

That the biological and psychological arguments showing the therapeutic importance of satisfying work for elderly people will be widely accepted seems unlikely as long as there are younger people unemployed. The predestined age of enforced retirement - all be it with a limited flexibility in regard to early or postponed pensions - is likely to remain, notwithstanding gerontological evidence that it is undesirable and socially expensive - at least until such time that the problem of work is looked at in the broader perspective outlined in the preceding chapter.

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* Royal Commission on Population: Report. London, H.M.S.O., 1949 (Cmd. 7695) Chapter 11: "The Age Balance". Cf. also: Roth, M.: "The Psychological Aspects of Ageing", A Working Paper presented to: World Health Organisation, Advisory Group on the Public Health Aspects of Ageing of Population, Oslo, 1958. (Document EURO-112/6, 1958)

10

Health

Health and Ill Health : Improvements in Somatic Health. Problems of Stress. Repair and Prevention and their Costs. Relation to the Disengagement Controversy.

"I would suggest that our next advance will again be concerned with causes but with ultimate rather than the intimate causes of disease - with the living and working conditions of the people: rather than with the bacteria and nutritional deficiencies, for which all these provide the opportunity... looking forward we shall base our new campaigns and changing disciplines on a closer alliance than heretofore between the medical and social sciences and educational behaviour." (A.J. Ryle, Professor of Social Medicine, Oxford 1943-1950; Letter in "Lancet", 1949, I, 713)

"... Medicine in the broad sense is concerned almost with two different universes. Disease and disability may result from the impact of the environment or they may be generated intrinsically to the body ... modern medicine and medical science is by no means such a triumphal march toward perpetual health and well being as popular accounts of what is going on in research laboratories might lead the simple-minded to picture... cancer in general, coronary thrombosis and mental disease are more prevalent and not very much more effectively treated than they were.. ...since the days of Pasteur and Lister, science and common sense have found their most effective application to medicine by concentrating on those causes of disease that clearly come from without... Many types of infectious disease can be prevented and almost all serious types can be effectively treated if the right methods can be applied early enough. Malnutrition should no longer exist anywhere in the world... What remains to be prevented and cured has a different set of origins. Broadly speaking, the conditions whose control eludes us have a genetic or a somatic genetic background against which the onset of deterioration can be accelerated by self-indulgence or misfortune... Anything we can do to provide a childhood and early life free from illness is in itself likely to favour freedom from untimely illness in old age. (Sir Macfarlane Burnet, Melbourne, Nobel Prize, Medicine, 1960 - in "Genes, Dreams and Realities", 1971; pp. 3 and 168.)

"It is during adult life (and in certain cases during childhood) that our fate in old age is decided." (F. Bourlière, Paris; "Ecology of Human Senescence", in J.C. Brocklehurst's "Textbook of Geriatric Medicine and Gerontology", 1973, p. 73)

> "... inactivity at this age [retirement] can often lead to disastrous physical and mental regression." (Aubrey Kagan and Lennart Levi, Stockholm, Adaptation of the Psychosocial Environment to Man's Abilities and Needs", at International Symposium on "Society, Stress and Disease", 1971. p. 403.)

The preceding discussion on functional age showed that calendar age is not adequate to measure working capacity. It may appear that the point was perhaps somewhat over-emphasised. But the individual's working capacity - in the senses of physiological and psychological ability to do useful and satisfying work, as outlined in chapter 8 - reflects success or failure in postponing biological, psychological and social ageing, and thus marks success or failure in preventing, or at least delaying, states of dependency of the human individual.

The maintenance of health in the widest sense, as the individual ages chronologically, is in fact the central issue in the subject with which this study deals. It has been left until this last chapter in order that it may be seen against the background outlined in preceding chapters.

Only very few aspects of health and illness of elderly people will be discussed here, and more summarily than they deserve to be. This is done in order to focus on and to stimulate discussion of issues of concern in social security and gerontology. First: problems of somatic health in relation to ageing; secondly: problems of psychosomatic health and stress; thirdly: some major problems of repair and prevention (including the inevitable questions of relative costs)and, lastly: a short look at how states of health of elderly and old people are related to the activity and disengagement hypotheses discussed in chapter 7.

Physiologists, psychologists, psychiatrists, practitioners of social and preventive medicine, pathologists and those working in other clinical and paraclinical disciplines differ widely in their views about the ageing mechanisms in humans and about the reasons why the functional capacity of the various organs and systems ages so very much more quickly in some human individuals than in others.

Sir Peter Medawar, a biologist (Nobel prize, Medicine, 1960) distinguished, in a discussion in 1971*, between three biological views on ageing. The first represented ageing as essentially a biological process as natural as growing up, a process therefore about which not much could be done. According to a second (biological) view ageing was principally a disease-like process; and, in a third view ageing was thought of as a terminal episode of normal development, beginning before birth and ending with death, a phase at least in part genetically programmed.

The second of these views in particular is a step back from Galen, many centuries ago, who saw old age as a state half way between health and illness, and concluded that predisposition to certain states of ill health in advanced years should lead to more research into how the body functioned as it grew older.

D. Bellamy of Cardiff, another biologist, described ageing, in the same discussion, as comprising all events in the history of an organism: events labelled "development" up to the point where they led to perfection of function (enabling the organism to become efficient as a reproductive system) but turning into "ageing proper" after they began to become associated with imperfection of function.

It is this latter process of imperfection which biologists are as yet far from able to explain fully. While they agree that in ageing, cells produce different proteins, some see the process as being due to mutations in the cell, other biologists regard it as a failure in the "print-out" process, that is cells being no longer able to translate the instructions of the nucleus. Biologists are agreed that ageing is characterised by a lack of renewal of certain cells - varying greatly in organs and in different individuals. That ageing is not a uniformly progressive process is widely accepted among biologists.

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* Reprinted in: "The Listener" (London) 82, 2206 (8 July 1971) pp. 33-36.

We note in passing that it is possible to argue, in biological terms, that ageing and death have a positive function in that positive evolution towards more complex organisms is thereby furthered through genetic selection. More rapid turnover of generations, in that view, and speedier selection should favour the development of advantageous characteristics of a species. The argument is however unconvincing because death in the wild occurs usually before tissue ageing has set in and after the reproductive period has passed. It is therefore hard to see how ageing could have been positively selected for. Selection should, on the contrary, rather favour animals with the longest life span.

Heron and Chown, two psychologists, not many years ago began the very first chapter ("Problems of Ageing") of their book cited above, with the categorical statement: "We do not know what ageing is". Zhores Medvedev has spoken recently of, "... probably upwards of two hundred theories of ageing most of which lack even the flimsiest experimental support".

In 1973, the prominent physiologist, F. Bourlière, declared:

> "What little is known of the way different human populations and professional groups age does not allow any definite conclusion. At the very most we are justified in making a few working assumptions which will have to be confirmed by further research."

Sir Macfarlane Burnet, the microbiologist, while formulating an immunological theory of his own about ageing of organisms, expresses a pessimistic view as to the likely success in a foreseeable future for finding a simple or a single theory of the complex phenomena of ageing. His views are shared by geneticists. Alex Comfort, basing himself on Leonard Hayflick's work at Stanford, is somewhat more optimistic about the possibility of locating an accessible molecular "clock" or clocks, marking time allotted to particular types of tissue, and then tampering with the clock's mechanisms in order to "modify the ageing process".

But, great as is the diversity of views about the causes and mechanisms of ageing, there is a wide scientific consensus as to the importance of factors earlier in the life of the individual which may accelerate or retard ageing of particular organs and functions and induce or inhibit morbidity in older age.

Those working in biological sciences seem to be largely agreed that the maximum potential life span is species-specific, and does not vary greatly with environmental conditions; and it may well be that the human survival curves shown in chapter 4* give an indication of what this maximum potential may be for homo sapiens.

But research workers in various biological sciences are largely agreed also that the average duration of life of a population of a given species depends to a high degree on the conditions of living of that population.

It is because of the high probability that ecological, environmental (including social) factors contribute to whether ageing is healthy or morbid that it was found to be necessary to refer in passing in almost every one of the preceding chapters, to aspects of health of the ageing human individual.

Maintenance of somatic and psychosomatic health of humans is, alongside eradication of poverty, the most important raison d'être of gerontology. Similarly, incidence of morbidity at higher ages is to some degree a touchstone of social and social security policy as it affects the same individuals at earlier ages.

Even in so far as an individual's health is not directly ecologically and environmentally determined it affects social security also, but differently. The cost of ill health of old people could rise soon to levels threatening to exceed supportable limits.* Need to find ways for promoting healthier ageing becomes therefore a powerful stimulus for gerontologists and others concerned with social policy and social security to encourage biological and micro-biological research and to take an interest in seeing results of such research applied.

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* Cf. diagram 5, on p. 45 above.

Geriatrics has a part to play in that it is the practice of medicine among elderly and old people at risk of becoming dependent. Its relevance lies in that geriatric care should, by common consent, be preceded by an assessment of the physical, mental and social factors responsible for disabilities at higher ages.

Geriatricians recognise that, while their speciality is designed for the needs of the middle aged, elderly and old, there is no particular lower age limit for their patients as there is for school age or pension age. "What matters more than the patient's age is the risk of dependency."** Many geriatricians are aware - perhaps more so than many other medical practitioners - that pathological states at higher ages are often non-specific and, what is more, they are pluricausal. Geriatricians realise that very old people are often slower to respond to treatment than younger ones. A cold that might be harmless to a younger person may need careful supervision. Disabilities such as endocrine and metabolic disorders tend to be more difficult to diagnose in old patients, for doctors not accustomed to the symptoms at higher biological ages. None the less, purely age-related disease processes are rarer than is widely supposed. Many geriatricians show an awareness of the fact that, while disease is still thought of widely in medicine in terms of an international classification and pathological states illustrated by specimens that can be mounted in perspex jars to adorn the shelves of museums, old people's incapacities have rather different dimensions, perhaps partly as a result of reduced income or unsatisfactory living and working environments, perhaps as a result of bereavement. Hence, it seems fair to say that geriatricians will justify their speciality only by diagnosing correctly the risk situations which lead to, or at least aggravate, states of dependency which are causing contemporary societies such increasing strain by morbidity of ever larger numbers of people in higher age brackets, increases that have created multiple medical and social needs for services and expenditure.

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* Monetary limits are not the only parameters; but they can scarcely be ignored. In the United States, where the rate of monetary inflation has soared less in recent years, relatively than in many other countries and where there is as yet, at the time of writing, no national health service, costs of illness had "... risen beyond the capability of many people and the local levels of government... By far the largest element in the increase ... is attributed to price rises rather than to greater utilization of services and the introduction of new techniques ... Inflation in the cost of medical services, since 1960, has averaged well over half as much again as consumer prices generally, and has exceeded even the rate of inflation in the cost of housing." (Evidence by Mr. Alfred C. Neal, President of the Committee for Economic Development, before: United States Congress, Joint Economic Committee, Subcommittee on Consumer Economics: Hearings on the Cost of Medical Care. Washington D.C., Government Printer, 15 May 1973, p. 82).

** Lefroy (Dr.) R.B. (Geriatric Physician, Department of Health, Western Australia): "Purpose and Functions of Geriatrics and Gerontology", in Australian Association of Gerontology: Proceedings of the Fifth Annual Conference, Canberra 1969. Sydney, Sandoz, 1969, p. 53,f.

In as much as geriatrics is preventive: that is, concerned first with better functioning of the elderly and old in society, and with cure and pathology only second - it is therefore of great interest for social security. Geriatrics will need wider support if it is to be fully recognised - and support not least within medicine. It is not a speciality which junior doctors rush into. Unfilled vacancies in geriatrics are commented on frequently in the medical press. It is argued sometimes that one of the dangers of wider recognition of geriatrics could be that it might spawn geriatric sub-branches such as psycho-geriatrics, experimental geriatrics, clinical geriatrics, social geriatrics, and thereby foster over-specialisation. Signs of such a trend are already apparent. They constitute a threat as do similar tendencies in gerontology. They can be inimical to true health care with a holistic approach to the person as part of his environment rather than to his diseases as such. Good geriatricians tend to stress the need for continuous surveillance of middle aged and elderly people before they succomb to multiple cumulative ills.* Many geriatricians are well aware of the danger of over-specialisation and oppose it:

> "... cette discipline se révèle à bien des égards fort différente de la plupart des autres specialités. Face à la médicine contemporaine, fragmentée en de multiples spécialisations, la gériatrie agit plutôt à la manière d'une force d'intégration. Elle oblige le médecin à aborder son malade dans la perspective d'une interessante complexité.
>
> La gériatrie exige de la part de celui qui l'exerce une approche non seulement médicale mais encore psychologique et sociale."**
>
> ("... this discipline differs in many respects from most other specialities. By contrast to contemporary medicine, fragmented into many specialisations, geriatrics acts rather as a kind of integrating force. It obliges the practitioner to look at his patient in a perspective of interesting complexity. Geriatrics demands of its practitioners not only a medical but a psychological and a social approach.")

F. Verzár of Basle, an experimental micro-biologist who has taken a keen interest in geriatrics and gerontology, distinguishes between primary and secondary ageing.*** The former is seen as decline in the capacity of mitosis**** of the nuclei of certain cells in key organs, notably the ganglion cells of the central nervous system and of skeleton muscles, while cells in other parts of the body, e.g. the epithelium of the skin or of the intestine, are continually renewed and therefore do not age. Certain extra-cellular macro-molecules are never renewed, and they age, notably the main macro-molecular protein of the connective tissue, collagen.

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* Chebotarëv finds that, "statistics indicate that the gradual building up of the chronic illness, typical of the older age groups, begins as early as the 35 to 40 age group".

** Junod, J.-P. and Goda, G.: "Gérontologie, medico-sociale", in Martin, E. and Junod, J.-P.(eds.): Précis de gériatrie. Paris, Masson and Berne, etc., Huber 1973. pp. 36-43.

*** Cf. Verzár, F. (Director, Institute for Experimental Gerontology, Basel): "Biologie de la Senescence", in Martin, E. and Junod, J.-P.(eds.): Précis de gériatrie, op.cit. pp. 23-26; and
idem: "Regulation of Adaptation Processes in the Mechanism of Ageing", in International Gerontological Association, 9th Congress (1972): Proceedings. Kiev, I.G.A., 1972, vol. I. pp. 46-51.
Both sources provide numerous references to Verzár's own, H.P. von Hahn's and other research on the subject.

**** The process by which the nucleus of a cell divides into two, a process taking place by several phases and resulting normally in cell division.

Secondary ageing is described as abnormal protein and enzyme production and consequent disturbances in code transfer. These cause metabolic effects in additional organs and functions of the body. Geriatric practice was confined until recent years to therapy of such secondary ageing, mainly by restoring oxygen supply or enzymes by means of appropriate nutrition. Even though the processes of cell ageing are as yet far from being fully understood geriatric treatment and prevention now aim at delaying primary as well as secondary ageing. Verzár and his collaborators consider that, theoretically, even lack of genes or their diminution can be countered by treatment to strengthen repair mechanisms.

Verzár refers to the diminution of the capacity of the memory of very old subjects to recall recent events, to delayed reaction times and to difficulties of adaptation of some very old people, in terms of progressive reduction or non-renewal of such ganglion cells. Research in pharmacology, biochemistry and on the functioning of hormones is beginning to make available products which may counteract ageing processes weakening the short-term memory of very old people.*

Communicable diseases - nearly all common bacterial infections and most parasitic diseases, epidemics - as well as malnutrition, dangers to man from a hostile physical environment, all of which took such a vast toll during most of humanity's history - can now be kept under control in the richer countries. Antiviral chemotherapy does not show the same degree of success, perhaps because it requires greater knowledge than is yet available of cell functioning. But many of the disabilities which prevented man in the past from surviving beyond what is now considered middle age are no longer lethal at middle age. The other side of the coin is that, as a result of increased knowledge in bacteriology, pathology, pharmacology, curative medicine,* sanitary engineering and vaccination, mainly in the nineteenth and twentieth centuries, many frail people survive middle age. The proportion of really fit very old people to-day may not be so very much larger than a millenium or two ago. But in addition to the very fit many others now survive, if not into very old age at least into old age.

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* But Eunice Belbin's work at London on optimal learning methods for older people - which may mean people from 30 or less upwards! - Craik's work at Toronto, Bromley's work at Liverpool and perhaps not least Hans Löwe's research at the Karl-Marx University at Leipzig, on learning processes may well make drug treatment quite unnecessary. Löwe's experimental studies bring him to the conclusion that learning capacity is by no means age-determined, and that social variables, early schooling, occupation, role-determined factors, are of greater importance than biological factors.

For statistics of morbidity in old age to-day one has to rely very largely on longitudinal case studies and on localised investigations, for reasons stated in chapter 4 above.** There is no doubt that in regard to somatic health geriatrics and the relevant medical specialities are able to draw on better diagnostic - if very costly - procedures than in former times. This applies in particular to atheroscelerosis, cardiovascular and cerebrovascular disorders, late onset diabetes mellitus, pulmonary diseases and also, to a more limited degree, to neoplasms and other still often fatal conditions. It applies even in countries like Sweden which is a model of low morbidity. In anaesthetics, products are becoming available which render surgery possible even for older and frailer subjects.

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* Statistics on consumption of different types of drugs exist only for few countries with well developed national health systems or severe drug control legislation. Case studies in some of these countries - notably in England and Wales, Sweden, France, Canada and the United States - show enormous increases in consumption of medicinal drugs, not least by individuals in the higher age groups, in recent years. Even in countries where a decreasing percentage of the cost of drugs is reimbursable under the social security system, the quantity of drugs taken has increased spectacularly. Much of this increased drug consumption represents in medical opinion, misuse of drugs, attributable in part at least to prescribing habits of medical practioners. Over-consumption of drugs merits intense sociological, psychological, epidemiological, psychiatric and medical investigation.

** Cf. pp. 47, ff. above. The subject is examined further, later in this chapter, in the context of prevention, on pp. 269 ff. below. Reference should also be made to the work of Bernard Benjamin, Professor of Actuarial Science at the City University, London, a former Director of Statistics, Ministry of Health, London, and ex-President of the Royal Statistical Society. Although he analyses primarily mortality statistics, much of it is highly relevant for morbidity data. Cf. Benjamin, B.: Health and Vital Statistics. London, Allen and Unwin, 1968: and "Mortality Trends in Europe", in: "World Health Statistics Report" (Geneva) 27, 1 (April 1974), pp. 24-34.

It is in fact now possible, as was noted earlier,* to stabilise, if not remedy, many pathological conditions in old age not long ago considered as irreversible. But the cost of appropriate diagnostic procedures is high and the risk still considerable if such morbid conditions are diagnosed only at advanced stages.

Comparisons of morbidity of older people over time are difficult to make for three reasons: first, owing to changes in diagnosis. Diagnosis has become more accurate only in recent periods. For instance, coronary disease and ischaemic heart disease in particular, were not separable in the statistics from angina pectoris anywhere until very recently.

Secondly, owing to absence of complete health records for a large part of the elderly, old and very old population (even in countries with good statistics on other aspects of health) notably for those outside hospitals and other institutions and not subject to regular supervision of their state of health.

Thirdly, owing to the multiple morbid conditions liable to affect (biologically) very old people, which are not always fully recorded even where records exist.

But for all that it is undoubtedly true, as some geriatricians have observed, that more is known about states of health of elderly, old and very old - and also of very young - people than about the middle aged, that is those in the period preceding the age labelled as "elderly". How important it is that more should be known will become apparent in the context of prevention, discussed below.** If it is important for somatic disability, it is even more so for psychosomatic conditions. For many disappointed hopes, expectations and anxieties that manifest themselves in morbid states have their origins at that stage of life.

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* Chapter 5, p. 135, above. One may "... look forward to the day", as Bernard Isaacs says so well, "when the word 'senility' will have disappeared from acceptable medical terminology as the word 'insanity' has done... senility is not a diagnosis."

** p. 264 ff., below.

If we take a longer view, however, it becomes evident that much more knowledge does exist about states of health of the elderly, than in former times, especially for the more common infectious and less complicated conditions. In the words of a general practitioner:

> "Until less than a hundred years ago our profession bled almost everyone who consulted them, following almost unchanged the precepts of Erasistratus of Alexandria more than 2,000 years previously. Even the bacteriological revolution is recent enough for one's own grandfather to have been a pupil of Lister .... If the potential for health care that this implies is so new we must not expect everybody to see almost instantaneously that our first challenge is now to apply it for the benefit of everyone and to break with any convention in order to do so."*

In popular belief high chronological age and chronic illness and disability are widely, but mistakenly, identified. Such beliefs may appear to derive substance from statistics showing that, e.g. more than one third of all hospital beds (in a medically advanced country) were occupied in a recent year by patients aged 65 and over - who took up a very large slice of the health service and local authority health budgets.** In another country, also very advanced medically, the proportion of beds occupied by geriatric patients, in an even more recent year, is given as 40 per cent. It would not be difficult to find many more statements of this kind for other countries where medical provision is relatively good.

To see such statistics in perspective two points need to be borne in mind. First, in former times - or in medically less satisfactory environments -

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* King, (Dr.) M. (Department of Social Medicine, University of Zambia, Lusaka) in his address on "The Teaching and Practice of Family Health", Kampala (November 1971); reprinted in "Lancet" (London) 1972, I, 7752, pp. 679-681.

** Care for the Elderly. London, Kings Fund, 1971.

the elderly sick and disabled would often be regarded as incurable, and would either not be treated at all or, a larger proportion of them, only in a rough and ready way in poor law institutions. Indeed, we have seen a law of 1867, in what is now one of the medically best endowed countries, which referred to hospitals existing for the poor and the dying rather than the sick.

Secondly, while chronic illness of the very old is certainly an urgent and frustrating problem facing the medical professions, public health, social security and the public at large, intensive local surveys suggest that the majority of the old may be neither chronically ill nor even disabled: although, as Drs. J.W. Williamson and I. Stokoe's survey at Edinburgh in 1964 showed,

> "... most old people do not report their complaints to their doctors until their condition is advanced."*

clearly much depends upon definitions. For "chronic" illness it may be useful to adopt the definition suggested in 1964 by A.F. Wessen and other medical authorities. They looked at "chronic" illness in terms of duration rather than by type of illness. They took chronic illness to mean illness requiring stays in hospital of thirty days and more: for it was considered in America at that time that most acute illnesses could be remedied in that period. To-day the length of time of that definition might well be shortened. But it is still recognised that the older patient requires usually a longer period for recovery than the younger.

A particularly interesting survey of the health of older people** was made by a group of five general practitioners in the North of England very recently.*** The very thorough survey, conducted by intensive interviews extending over a period of a year derives particular interest from the fact that it was undertaken by doctors whom the subjects knew and trusted.

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* Cf. "Lancet" (London) 1964, I, p. 1117.

** "Old" and "very old" people in the sense indicated on p. 226, above.

*** Williams, E.I., Bennett, Frances, M., Nixon, J.V., Nicholson, M.R. and Gabert, Jean: "Socio-medical study of Patients over 75 in General Practice", (A survey of 297 "old" and "very old" working class and lower middle class people on a medical panel in an industrial town in Lancashire in 1971) in, "British Medical Journal" (London) 2, 1972 (20 May 1972) 5811, pp. 445-448.

The authors took three categories of effective health as a basis. The first consisted of those who showed no signs of any incapacitating illness, had normal mobility, were able to do their housework and shopping and were generally in a cheerful mental state. The second were those suffering from some state of ill health, with which they were however able to cope even though their movements were somewhat restricted. They were those able to do housework and cooking, but not regular shopping. In the third category were people suffering from incapacitating somatic illness or mental deterioration that made them bedfast and unable to do any cooking, etc.

It was found, after careful assessment, including full clinical examinations, that 60 per cent (N. 177) of the subjects were in category I, 36 per cent (N. 108) in II and only 4 per cent (N. 12) in III. The response rate of 87 per cent may be considered remarkably high. It is perhaps a pity that the authors did not try to provide information regarding possible reasons why most of the 13 per cent (who were not too ill to be interviewed) failed to respond.

For anyone inclined to undertake surveys of this kind in the future the methods of this one seem useful as a model, and the conclusions encouraging. The authors noted that every subject gained something by participating - and participation was of course entirely voluntary - "even if it was only the psychological effect of being told that he was in good health".

The percentages of people in the three different categories are of course not comparable with the more rudimentary nation-wide sample survey of 27,000 people, beginning at the somewhat higher age of 80, in the whole of the Soviet Union, conducted some years earlier. There, 36 per cent of an on an average rather older age group were found to be "to all intents and purposes healthy and not burdened by illness".

Results of such surveys are not in contradiction to the fact that older patients take up a high and growing proportion of available hospital beds. The number of old and very old people in total population is higher, and standards of medical care have risen.

Studies, such as those by Townsend and Dorothy Wedderburn in 1965, tend to show that a high proportion of those in the categories II and III (in the study by Williams et al.)would probably find themselves in worse health if they were not well cared for at home: they would probably have to be transferred to institutions (already overcrowded) if relatives and others were not caring for them. Perhaps many of those in category I owe their good health, wholly or in part, also to such care. Express tribute is paid by authors of several such surveys to the care devoted by relatives to old people. Such care has implications for social security, which should receive further consideration, as was already noted in chapter 5 above.

A distinction needs to be made between those who are old in terms of biological age and those who are old in psychological and social age. J.M.A. Munnichs and A. Bigot make the point by saying that a terminally ill patient will be rightly considered very old in the biological physiological sense, regardless of his calendar age - and is clearly very much older than another patient who is not suffering a terminal illness. But the former is by no means necessarily psychologically old or socially isolated, lonely or depressed. Hence the services that people who are "old" in different senses require vary greatly.

But the distinction between people somatically ill and those suffering from mental illness or stress is not always easy to make - a point rediscovered in recent times. For Plato observed many centuries ago:

> "... It is the greatest error of our times .....
> that physicians separate the soul from the body."

If then diagnosis, classification and treatment of somatic illness of elderly and old people present problems, mental ill health presents even greater ones.

First of all, mental disease is difficult to understand and embarrassing to confront. This holds even for many scientists. But particularly it makes it difficult to recruit staff for nursing and care for old people suffering from mental illness.

In both gerontology and in social policy this constitutes a major problem. It has been said that something of the order of half the hospital beds in some advanced countries are occupied by mental patients.*

Institutions dealing with mental ill health, almost everywhere, need more and better personnel at all levels. But experience shows that care of mentally abnormal old, or young people for that matter, is unattractive. Therefore, the fact to be faced is that it may never be practicable to recruit and retain sufficient suitable staff to give individual care to all the patients who need services of such nursing staff. For this reason, the recent Briggs Committee on Nursing in Britain suggested creating a new professional category of "care staff", distinct from nursing, for mentally handicapped people.**

It is probably best taken as axiomatic that mental illness must be defined in social terms: individuals need psychiatric treatment if they suffer from a mood of such intensity and duration as to disable them or if, as a result of losing mental contact with reality, they cannot maintain acceptable relationships with the community and be responsible for their own well-being.

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* In England and Wales, at a fairly recent date, one million people required care and treatment for mental disease and disability. In the United States the number was roughly three times that. The proportion may approach one per cent of total population if psychoneurotic illness and disability is included.

** Cf. Report of the Committee on Nursing (Chairman: Prof. Asa Briggs) London, H.M.S.O., October 1972 (Cmnd. 5115) paragraphs 560-565. In an interesting attempt to measure the monetary cost of mental illness, three social scientists of the American National Institute of Mental Health arrived at some novel concepts for health economics of "costs to save costs" (mainly in terms of costs of prevention). Cf. Conley, R.W., Conwell, Margaret and Arill, Mildred: "An Approach to Measuring the Cost of Mental Illness", in: "American Journal of Psychiatry" (Washington D.C.) 124, 6 (Dec. 1967) pp. 755-762.

Mental illness has an enormous range. A little more or a little less tolerance as to what are to be considered as acceptable relationships with the community, or as to the patient's ability to assume responsibility for his own well-being, or as to his mental contact with reality, may mean the exclusion or inclusion of a very large number of people in the population classified as "mentally ill".

There is as yet no adequate way of classifying these states into definable diseases. Moreover it is hard to draw a line separating the normal from the abnormal. Perhaps the remarkable complexity of the human brain renders the subject particularly difficult. Understanding of thought and behaviour depends in the last resort on detailed knowledge of the working of the human brain. If its mechanisms are defective, as they are in mental disease, repair must depend on such understanding. Chemical aspects of the brain's functioning, although complex, may prove eventually to be more accessible.

In psychopathology two major types of psychoses are distinguished. The first type,schizophrenia,manifests itself often before middle age by what is described as "disintegration of emotional stability". This may take widely varying forms. In later age it leads often to progressive loss of contact with reality and not infrequently to complete dementia.

The second group of mental diseases is characterised by severe depression, alternating, in some individuals with an extreme swing of mood, occasionally to elation, aggression and instability that may reach manic levels. This is the classical manic-depressive psychosis. The largest single group of sufferers are those with a wide variety of senile and pre-senile dementias.

More important still are the wide variety of psychoneuroses representing personality patterns of vulnerable people who become depressed, apathetic, confused, or break down under stress.

In psychiatry it appears to be agreed - even though not much else may be agreed - that all affective and emotive disorders are associated with biochemical changes in the brain, accompanied by somatic disease or not, and originating in genetic and/or environmental causes.

Mental illness is doubtless traceable in many instances to worries and unresolved conflict. None the less the fact remains that many individuals are able to withstand comparable degrees of worries and conflicts without breakdowns. This leaves the question: what antecedents trigger mental breakdowns at higher ages? One approach is to see to what extent mental disease in the elderly may be the result of somatic disease elsewhere in the body; another is to look for genetic causes. Yet a third approach might be to look for biochemical abnormality associated with mental illness. Not to be dismissed either as a subject of investigation is the possibility of iatrogenic illness, as well as the use of unprescribed drugs, medical and other. It is known that preparations containing, for example, reserpine - a drug once widely prescribed against high blood pressure - can induce severe depression, and that over-sedation with barbiturates and other tranquillizers, anti-epileptic drugs, etc., may have deleterious effects and even induce Parkinsonism. Genetic disposition may account for widely varying responses to drugs, taken at earlier ages, or even in old age, against particular morbid states.

If drugs that appear generally harmless may have noxious side effects and produce long term and perhaps genetic reactions this is an argument for much more stringent and longer testing and monitoring of the vast numbers of therapeutic drugs that appear each year on the market. This is expensive and it takes time. Animals suitable for testing new drugs to be used for humans are not easy to find. New drugs need to be tested on more than one species of animal. Except for drugs which produce a severe toxic effect little is known about why toxic reactions to the same drug vary so widely in different animal species. A dose of one tenth of that found effective in hamsters may be dangerous to man.

In humans it seems probable that genetic predisposition may account for individual differences in reaction. It is therefore important that this should be known as far as can be. Empirical treatment of mental illness has progressed, certainly; but this is not to say that more fundamental work is therefore unneccesary.

One of the open questions is how far social and psychological stress in earlier life, or even at or after retirement, may trigger states of sub-acute and acute mental illness.

It is widely accepted as an objective of policy that those suffering from, or handicapped by, mental disability should be reintegrated in the community and restored to a state of personal happiness, in so far as this is possible in the present state of scientific knowledge.

Anxiety, tension, depression, hyper-excitability, the basic symptoms of mental illness,can be countered by a variety of drugs. More generally, it has been shown that, in many cases, various forms of therapy have been effective in stabilising, if not completely curing, morbid conditions not long ago considered to be irreversible.

It is here that the progress in the analysis of the symptoms of overstress, by Hans Selye, Lennart Levi, Richard Lazarus, Aubrey Kagan, Charles A. Roberts and a large number of research workers is proving productive.* It is derived from an earlier notion.

As long ago as 1878, the French physiologist, Claude Bernard had developed the concept of homeostasis, the constancy of the internal milieu. To maintain this, Bernard showed, man must have access to the balancing factors involved in the process. Unless man could obtain what was required, and convert or eliminate what was in excess, he could not maintain homeostasis or health. The idea was, later, developed by others into a theory of diseases arising from deprivation: deprivational diseases, the "minus-sign disorders", as Sir Frederick Gowland Hopkins called them. They might be material or psychological. The stress concept, as it developed later, arose out of this notion of homeostasis. External variations must not be excessive in degree or too sudden in development. Man could, according to this school of thought, adapt physically and emotionally to a great variety of geographic, moral or cultural climates, but would break down when subjected to stress, physical or emotional in excess of tolerance. Stress situations were seen, none the less, as inherent in human growth and development.

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* Cf. reference to this problem in the context of role change and retirement in chapter 5, p. 58, above.

The stress concept expressed in physiological terms, as it has been in recent years, has proved useful as a warning signal before the onset of states qualifiable as mental illness.

A number of scientific observers have noted that intellectual skills in older people are lost to a significant degree in the poorly educated whose former occupations were associated with a low socio-economic status, and that such intellectual loss is sometimes greatest in those who can least afford such a decline. In elderly and old people, Ferguson Anderson has observed, such failing mental reserve tends to occur at a time when there might be great physical frailty, associated with compulsory retirement against a person's will, falling income, adverse physical environment, bereavement, traumatic experiences not infrequently synchronous.

Selye's description of the evolution of his physiological, biochemical concept of "stressors" - that is causative agents, as distinct from "stress", the non-specific stress response - seems particularly relevant to overload at higher ages.* Selye's stress is characterised by being measurable by objective indices such as increase of adrenal, cortical and hormonal substances, such as catecholamine, in the blood, thymus atrophy, eosinopenia, gastro-intestinal ulcers, etc.

Selye's "General Adaptation Syndrome" produced by various noxious agents or "stressors" developed out of an age-old knowledge that loss of vigour, feeling of exhaustion after hard labour, prolonged exposure to cold or heat, loss of blood, agonising fear, or any kind of disease, all had something in common: a similarity in response to something that was "too much". Selye saw the stress syndrome as developing in three stages: an experience of hardship, a response of acceptance of that hardship and, finally, a reaction where the individual cannot any longer stand the hardship or, in other words: an alarm reaction, a (perhaps prolonged) stage of resistance and, finally, a stage of exhaustion where irreversibility becomes a real danger. The middle stage of resistance is of some importance. It is then that all the non-specific defence measures are brought into action. If the stress persists or if it has been very heavy, the stage of exhaustion sets in and proceeds to decline and death. On the other hand, the effect may be slight, depending upon the individual. Stress, according to this theory, was not something necessarily harmful. It might even have curative effects, as in exercise.

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* Selye, H.: "The Evolution of the Stress Concept" (1970), op.cit. pp. 299-311.

The considerable contribution made by Selye and his collaborators is to have made what they call "stressor potency" measurable, different though this is for endogenous reasons (genetic, disposition, age, sex, etc.) or exogenous factors (drugs, dietary, etc.). They observed that degrees of stress normally well tolerated, or even stimulating to an individual, could become pathogenic and cause diseases of adaptation, affecting one or other of more or less predictable target areas. "Stress" was defined as occurring when "stimulation raised the activity of an organism more rapidly than adaptation could lower it".

In the late 1950s and early 1960s they showed that various stress hormones (Adrenocorticotropic Hormones [A.C.T.H.] glucocorticoid and mineral corticoid hormones, catecholamines) could produce or prevent arterial and ischaemic heart diseases, that is diseases affecting blood supply of the heart, in a more or less predictable manner. At a period when cardiac infarction, that is haemorrhages affecting the heart muscle, in the "civilised" countries disabled and killed increasing numbers of men, Selye's hypothesis was a considerable achievement - provided only that prophylactic measures were practicable.

In the view of some of their critics, Selye and his school may well have over-emphasised physiological stress to the detriment of social and psychological stress (i.e. distress associated with agonising uncertainty). Selye and his colleagues have been duly challenged by those who saw adaptive behaviour more in the latter terms. The debate continues. It may well be that what appear to be opposed views are reconcilable. In any case, it would seem that the methodical notions of scientific measurement of coping ability are valuable. In a field where experiments on humans are for ethical reasons excluded this must be considered an achievement.

It is a great advance in social policy that, in many countries, society now accepts some responsibility for the care of victims of overstress and of other disabilities which tend to appear in acute forms at higher ages. Society discharges this responsibility in varying degrees by means of social security, services of various kinds, health (including hospital) care, and cure where that is still possible.

But morbid states are discovered and correctly diagnosed often only at advanced stages of morbidity. "Senility" as a cause of morbidity in the elderly and the old is becoming less and less acceptable. For this as well as for other reasons, morbidity (of a number of specific and multiple types) of the elderly and retired has undoubtedly been rising, and costs of treatment have been increasing even more sharply. Although precise figures exist only for certain limited aspects of morbidity of the retired, and only in some environments, there is little doubt about the general trend.

Many gerontologists interested in the human and social costs of ill health of elderly and old people have been concerned to inquire into what more could be done to detect disabilities at an incipient stage, or even earlier - when there is greater hope for simple and timely preventive measures (including continued surveillance) to succeed against many disabilities. Much suffering among the elderly and retired, and overload of geriatric services, might be avoided thereby. It is clear that an older person found to be at risk must be followed for the rest of his life.

Some gerontologists concerned with social and preventive medicine are interested in the study of social policies designed rather more to deal with what Selye, Lennart Levi and their colleagues refer to as "stressors", the causal agents of stress, than merely postponing remedial action until the final stage of "stress response".

To strengthen the individual's defence mechanisms in the "resistance phase" is a useful medical approach. This applies indeed by no means only to "stress", which came to be seen as a debilitating somatic phenomenon of alarming proportions only in the second world war, but to all the wear and tear diseases at least in part related to mode of living of the individual. Health education for people of all ages can be - and is - used to this end. Negatively, warnings against the use of and exposure to noxious, toxic and debilitating agents (in the widest sense) and unhealthy modes of living are a function usefully performed by public health and medical authorities. Warnings against excessive consumption of alcohol, tobacco, ~~sedatives~~ sedatives, drugs sold to the public without prescription, etc., are cases in point. Positively, encouragement and advice on healthier living serve this purpose also.

Biologists tend to emphasise perhaps too much the individual differences in capacity to withstand wear and tear and disease-provoking conditions. Medical authorities tend to advocate abstention from psycho-active and other drugs without probing into the social norms which incite and drive people to their use. They often advocate healthier living, more exercise and relaxation without inquiring into existence of facilities, use of time and access that would enable people to follow such advice.

Some sociologists and a number of gerontologists who see debility in old age not entirely in genetic terms want to investigate causes of unhealthy environmental conditions to which people are exposed at earlier ages, conditions occasioning a degree of wear and tear even the hardiest of younger individuals are unlikely to endure for long without damaging consequences.

Differences in life expectations of women and of men referred to in chapter 3 may suggest that the slackening of the increase in life expectation may not be entirely unrelated to wear and tear to which individuals are exposed earlier in life. Mortality is not as good a measure of this as carefully analysed morbidity data would be. But these are as yet not available on a sufficiently large scale and with a sufficient degree of refinement.

If it proves to be true - as there is reason to suspect* - that there is now beginning to be a "slackening in the improvement of life expectation of women" as well as of men, this would be an additional reason for investigating more thoroughly than has yet been done, how far morbidity, as well as mortality of women - now increasingly exposed to working conditions similar to those of men - may not be due to such causal factors. It might be worth investigating whether increased preventive measures might not affect mode of living.

The economic aspects of increased morbidity of older people are viewed with growing concern by those responsible for social security of people at higher ages, sickness funds, etc. and by those concerned with the economics of health, by public health and medical authorities. But before looking at this more closely and at the relative costs of prevention and care,it seems useful to see what information is in fact available, in addition to case studies, on the parameters of health of elderly and old people.

To plan geriatric services where they do not exist already, and to adapt them where they do, to keep elderly and old people sound in mind and body as long as possible and to reduce disease and disability of this age group, requires facts on disabilities and illnesses from which they suffer, on the numbers of people in this age group, where they live, the conditions under which they live - in the first place in purely quantitative terms. An attempt to draw up an inventory has therefore been made for the first time, to determine the kind of data and the statistical sources from which they were available, in the entire world. An ad hoc inquiry was conducted by means of questionnaires addressed to the appropriate authorities in all countries.**

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* Notwithstanding the data for the mid- to late 1960s referred to on p. 31, above; cf. Benjamin, B.: "Mortality Trends in Europe" (1974), op.cit.

** "Sources of Medico-social Information on the Elderly", in: "World Health Statistics Report" (Geneva, World Health Organisation) 25, 3(1972) pp. 198-213.

Of the 102 countries replying, 87 stated that information on numbers of people aged 60 and over was available by age group, in some countries for census years only, in others annually. The proportions of this age group in total population can be calculated for these countries.

The answers showed that, whereas mortality data were available in 74 countries, disability statistics existed in only 19. Morbidity data from out-patients' clinics or follow-up departments existed in 18 countries, and hospital in-patient statistics for 47. It was noted that

> "Disability statistics pertain to persons officially classified by social insurance authorities and the like as disabled or handicapped."

Eighty countries replied that they could provide data indicating the number of state pensioners, but only 36 would be able to indicate the number of retired people other than state pensioners. Among the latter were of course those countries which could supply the former type of information.

An essential item of information is the number of elderly and old people living alone. This group is at high risk of untreated somatic and psychosomatic illness and under- and malnourishment: in particular those with locomotor difficulties, those suffering from some mental impairment, those recently discharged from hospital, those recently bereaved, those showing a tendency to neglect themselves or isolate themselves. They require therefore particular surveillance by health authorities. Only 27 of the countries replying had some information available from census and other sources; 16 could give the information they had, with breakdowns for five-year age groups, and 10 countries had it broken down by 10-year age groups.

Special surveys to assess the state of health of the elderly and their living conditions, their normative needs for various types of medical and social care were said to have been carried out in 17 countries at some time or other, mostly by geriatric and gerontological societies. The number of countries having information on elderly and old handicapped people was as follows: blind 23, deaf 18, on those handicapped by musculo-skeletal disabilities 14, and on those suffering from psychotic and nervous disorders 19.

In regard to geriatric services a distinction was made between four types of services: (1) hospitals (2) geriatric dispensaries and consultation rooms (3) old people's homes and (4) special dwellings.

Replies from 32 countries indicated that they had hospitals for geriatric patients, either as independent geriatric institutions or as wards or departments in other institutions. A "hospital", for the purpose of the survey, was defined as

> "... an establishment providing medical and nursing care, permanently staffed by at least one doctor of medicine, and having in-patient accommodation available".

The survey showed that most geriatric hospitals treated people with chronic diseases; some had facilities for rehabilitation, and some treated also acute morbid states. Administration and financing of these hospitals was a governmental responsibility in 30 countries; administration was a responsibility of "private" groups in 15 countries and, in 6 countries, both governmental and "private" funds and administration existed. "Private", in this context, meant mostly philanthropic societies, religious orders and the like, and finance based on voluntary contributions.

Geriatric services of the second type, viz. "geriatric dispensaries and consultation rooms" were usually departments of institutions, but were found also sometimes independently; 14 countries reported having such services - government supported in 10, privately supported in 4.

The third type of service, "boarding houses for the aged", was taken to include all types of homes where elderly and old people lived and were cared for, such as old people's homes, pensioners' homes, nursing homes. This type of service covered therefore a very wide range: from "boarding houses" for old people able to look after themselves without continuous assistance, though they might be suffering from some disability or disease, to those providing much fuller care facilities: 39 countries could furnish the number of such establishments. In 35 they were publicly, in 24 privately financed: thus a certain overlap in sources of finance.

The fourth type of service, "special dwellings", included "residential homes", "hostels for the aged" and similar accommodation for single or married elderly or old people generally doing their own housework. These existed in 25 countries; in 9 of them they were referred to as being part of larger institutions. The number of such "special dwellings" could be provided by 24 countries. In most countries they were publicly administered.

In respect to medical and geriatric care, the number of beds available in geriatric hospitals could be provided by 32 countries, number of places in "boarding houses for the aged" by 37, in "special dwellings" by 21 countries. The number of patients in geriatric hospitals could be given for 31 countries, the number of people in "boarding houses for the aged" for 36, the number in "special dwellings" for 14 countries. Figures for the number of physicians caring for the elderly were available for geriatric hospitals in 25 countries, for "boarding houses for the aged" in 22 countries. The number of nurses employed in geriatric hospitals was available for 25 countries, in "boarding houses for the aged" for 22,and in "special dwellings" for 10. Numbers of other health personnel taking care of the elderly was available for geriatric hospitals in 18 countries, for "boarding houses for the aged" in 22, and for "special dwellings"in only 6 countries.

A central administration was said to be responsible for geriatric services in 49 countries: usually the Ministry of Health but in some instances that of Social Services or Labour; in some cases the hospitals themselves had the responsibility. Training for the geriatric health service was provided centrally in 26 countries, usually the Ministry of Health, in some instances by medical schools, schools of nursing, etc.

The survey summarised here was restricted to indicating types of data and, in some instances, sources from whom they might be obtained. Collection and analysis of the data said to be available thus await some persevering and enthusiastic gerontologist.

The survey supports our own conclusion that routine mortality statistics, while useful, "do not give the whole picture in respect of the common ailments of the elderly"; and that even reliable mortality data are by no means available for all countries. As for morbidity statistics of elderly and old people, the authors of the survey observe that "disability statistics are quite under-developed". They found that hospitals were often the only sources for such data, and that the data consisted often of no more than quite rudimentary admission and discharge records, and perhaps summary information regarding out-patient consultations.

The survey concludes, as we do - and as Ferguson Anderson, N.R. Cowan and other gerontologists and geriatricians have concluded - that the number of elderly and old people who seek medical advice, before a very late and serious stage in their illness, may be far outnumbered by those who do not, and that a special system for recording elderly morbidity is as yet no more than a desirable objective in most countries.

This means that there may well be - to use Ferguson Anderson's phrase - "an iceberg of undetected physical and mental illness" - a suspicion supported by case studies in various countries, including those quoted earlier. General practitioners seeing old people in their own homes are often faced with seriously ill patients suffering not only from multiple disease conditions which are not easy to diagnose, but also from a collapse of the social environment. Doctors have observed that the latter is a seriously aggravating circumstance with which they alone are ill-equipped to deal. Coordinated hospital and social services, for provision of meals, help with housework, shopping, provision of telephones and other services for help referred to in chapter 5, can then become vital.

It is clear that from every point of view prevention of illness and disability is desirable. This means seeking out early disease and reducing factors likely to produce it. There is much truth in the dictum that the old are ill not because they are old but because their health is neglected.

Prevention might perhaps best take a three-pronged form: (a) preservation of the physical health of the individual as far as possible as he advances in age; (b) maintenance of his mental health; and (c) maintenance of his social standing and circumstances. These objectives require the closest collaboration among medical and social professions, and considerable public support and understanding.

This would seem to be a strong argument for widespread and regular screening. In his investigations in Finland, Ruikka found that the old, more than any other group, suffered from hidden disease or diseases with very few symptoms. This indicated to him a need for screening tests for elderly people which could, in his opinion, well be combined with a network of geriatric health centres, comparable with maternity and child welfare centres which had proved a remarkable success in Finland, as in other countries where they had been established. Medical evidence suggests also that everyone over the age of, say, 70 should be visited regularly by a nurse and a social worker, perhaps a voluntary worker: possibly a useful field of activity for the "younger old".

About 10 years ago, an international seminar on preventing premature ageing and on protecting elderly people's health brought together some two dozen of the leading European gerontologists, geriatricians and some social security administrators concerned with ageing, at Kiev.* They came to the conclusion that, whatever the practical shortcomings of routine health examinations of various types, they were of considerable practical value; they made early detection of unsuspected conditions possible and provided opportunities for useful medical and social advice. The question of costs of large scale screening relative to results achieved by it was specifically mentioned. The participants of the seminar suggested that existing experience of various systems of screening required to be carefully evalued and studied. As far as is known this has not been done to this day. The seminar's recommendation on this subject was

> "The greatest possible number of people should be enabled to benefit from regular health examinations, bearing in mind the facilities locally."

For those suffering from incipient disability the seminar recommended geriatric day hospitals. At that time some hospitals of that type existed already in some countries.** Their numbers have grown since. They provide proper medical supervision, rational care and rehabilitation for elderly and old people who do not require prolonged stay in hospital.

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* *Seminar on Health Protection of the Elderly and the Aged and the Prevention of Premature Ageing*. World Health Organisation, 1963.

** Cf., e.g., Brocklehurst, J.C.: *The Geriatric Day Hospital*. London, King Edward's Hospital Fund, 1973; Huber, F.: "Das Tagesspital und seine Bedeutung in der geriatrischen Medizin", in: "*Zeitschrift für Krankenpflege*" (Berne) 65, 7 (July 1972) pp. 275-278; Hall, M.: "A Case for the Abolition of Long Stay Hospital Beds", in: "*Gerontologica Clinica*" (Basle) 14, 6 (1972) pp. 333-338.

Looking at prevention in a wider context, the Kiev seminar referred to above, concluded that a national institute of gerontology and geriatrics was needed in each country to train medical, para-medical and social workers, to gather information on problems of old age and develop research: in particular it was felt that social, economic, biological medical and clinical research on ageing should be coordinated.

The question of relative costs of prevention and screening on the one hand, and care and treatment on the other, has for a long time exercised the minds of all concerned with health economics, not least those responsible for social security. A considerable amount of writing exists in which the costs of ill health are expressed in terms of growing percentages of national income, in which these increases are related to the changing age structure of a country's population, where these costs are sometimes broken down by items, occasionally past trends are projected into the future to show that the problem is liable to become insoluble in a not distant future unless radically new approaches are looked for.

The International Social Security Association, one might almost say, owes its origin to preoccupation with this problem. The International Association of Unions of Sickness Funds and Mutual Benefit Societies (better known by its French acronym of CIMAS) which later became the I.S.S.A. had at the first General Assembly after its foundation, that is in 1928, a report presented on the subject of sickness insurance and social hygiene. In it, the Rapporteur, Mr. M. Eldersch (President of the Vienna Workers' Sickness Fund and also President of the Austrian National Association and a member of the Committee of the CIMAS) laid great stress on the interest to the Funds in more far-reaching measures for the prevention of sickness. This did not cover the prevention of sickness in old age. But the subject must have aroused interest. For at the following General Assembly at Zurich, a year later, that subject was touched on in a report by Mr. Osiowski on "Care of the Sick in Institutions owned by the Sickness Funds". The Rapporteur dealt with problems that arose as sickness insurance coverage widened. He dwelt on the rising costs of medical and dental care and also of pharmaceutical products, and referred to problems of preventive medicine. In cases where sickness, disability and old age insurance were linked, he urged the member institutions to consider the possibility of investing in sanatoria and clinics. Again a year later, in 1930, a report was presented, this time by a former Minister of Public Health, in which more research in preventive medicine was advocated as part of a campaign against "social diseases".

The Association's following General Assembly centred on the struggle against cancer. Two studies prepared by an eminent cancer specialist, a gynecologist and a radiologist had been submitted as a basis for discussion. In these, member institutions were urged to support research on cancer and to aid health education to secure greater public cooperation in early detection of cancer. In one of these reports attention was drawn to the need for better morbidity statistics. At the Sixth General Assembly in 1933, at the height of the slump, yet another report was submitted for discussion in which morbidity statistics (of cases covered by a Sickness Fund) were analysed by age, sex and type of morbidity (for a 3-year span) in order to demonstrate that more adequate measures of prevention might save the sickness funds from having to reduce services rendered to their members. The rising costs of medical care constituted clearly a matter of prime concern to the member institutions represented at that General Assembly in Paris in 1933.

If one were to follow the subject, as it is reflected in discussions of reports submitted to the general assemblies during the following forty years, this would show the growing concern of the world's social security institutions with sickness and disability of old age pensioners and, particularly, with incidence of ill health in so far as it imposed, or might impose in the future, a growing burden on these institutions. The "Permanent Medico-Social Committee" of the I.S.S.A. - which later changed its name to "Permanent Committee on Medical Care and Sickness Insurance" - examined at its 13th Meeting at Geneva in 1972 a report on "The General Causes of the Increase in Sickness Insurance Expenditure". In it the Rapporteur, Mr. C. Michel, Hon. Director of the French National Federation of Social Security Bodies, pointed out that the changing age structure of the insured population implied considerable increases in expenditure. He expressed these costs in terms of gross national product (for 13 countries) and could foresee no end to the rise in costs of ill health - which might increase four- or five-fold in twenty years. Such costs could rise faster than gross national product, especially as the increasing numbers of old and very old pensioners were the principal "consumers" of hospital services, medical expenses and drugs. He observed that modes of living affected these costs greatly.

This sentiment reflected in the I.S.S.A. report of 1972 coincides with that expressed by the clinician, Professor Henry Miller, Vice-Chancellor of the University of Newcastle:

> "When the more dramatic and esoteric advances in medicine are set aside its major problems loom large - the care of the handicapped and the aged. Often this can find no possible justification in social efficiency or cost effectiveness. In the last resort ... the justification for medicine is a moral one."*

One may accept the point made by Dr. Miller, Mr. Michel and many others that,

> "... medical activity is, frankly, counterproductive ... and cannot be justified on economic grounds...", that
> "... it is not possible to justify medicine entirely as a cost effective and economic exercise ..." and that because
> "... medicine now possesses tools to prolong life ... it is faced with moral, social and practical problems."**

One may even go some way with P. Self, professor of public administration at the London School of Economics, and his colleagues who roundly condemn all cost benefit analysis and argue that it is

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* Miller, (Dr.) H. in: "Forword" to: Anderson, W. Ferguson et al. (eds.): Patient, Doctor, Society. A Symposium of Introspections (1972) op.cit. p. xi.

** idem, in a radio programme, summer 1971; reprinted in "Listener" (London) 1 July 1971 p. 11.

> "... nonsense to attempt to assess the value of a quiet environment, a mediaeval church, a human life or the relative value of time spent travelling for a business man or a tourist."

Much can be said - and much has been said - about the limitations of the usefulness of cost-benefit analysis in comparing cash values of tangible elements about which there is no dispute with imputed values of intangibles on which there is no agreement.

But for all that, attempts have to be made to compare costs of prevention and costs of care of old people - in so far as they are alternatives - if only because ways have to be found for optimising the inflating health budgets. True though it may be that health has no price, it has, none the less, a budget.

Such cost comparisons are urged on all sides. One result of this pressure has been manifested already in a tendency to limit duration of care and stay in hospital of all patients, not excluding old people, to

> "... treatment of proven efficacy, and distribute the resources thus freed among care services in the community."*

Such policies need critical assessment, especially to evaluate social inequalities between patients of different socio-economic groups which they may entail.

Among a mass of writing on costs and prices of medical care and the economics of health, there is not much that suggests that such comparisons in money terms are realistic and feasible. But some ideas worth considering are contained in an original pilot study. It is of interest even though it does not deal specifically with people above retirement age. No one seems as yet to have tried to adapt the concepts used to this age group. The study, which bears the evocative title "Costs of Non-Rehabilitation",** was carried out by a cross-disciplinary team in Israel ten years ago. The model constructed gains by being retrospective. Both costs and benefits are analysed under three headings: costs and benefits to (a) the economy as a whole, (b) public and social security funds and, (c) the family. The model is confined to costs and benefits easily measurable in money or in economic resources. For example, under benefits are listed (i) the potential patient's ability to take care of his own needs and, (ii) his ability to do enough housework to require only a part-time housekeeper, or no housekeeper at all. The authors point out that, while it is not easy to express (i) in terms of money, it is very important to the family; (ii), on the other hand, is easily measurable in terms of money. The cost or benefit of (i) to the economy, the authors suggest, is best expressed not in terms of money but in terms of economic resources required or set free.

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* Cochrane, (Dr.) A.L. (Director, British Medical Research Council's Epidemiological Unit, Cardiff): Random Reflections on Health Services. London, Nuffield Provincial Hospitals Trust, 1972.

** Silberstein, (Dr.) J., Margulec, (Dr.) I. et al: "Costs of Non-Rehabilitation in Israel", in: "Journal of Chronic Diseases" (Pergamon Press, Oxford and New York) 17 (1964), pp. 991-1018.

On the cost side, for example, a patient's stay in hospital can be expressed as a money cost for public funds and, to the economy, as a use of facilities needed by a particular patient. Thus,unnecessary stays in hospital are, so it is argued, for the public and social security funds, and for the patient and his family, a waste of money; for the economy (which supplies the economic resource) a waste of care facilities which could be available for another patient. The authors point out that money costs and resource costs cannot be added: they are two views of the same activity.

Similarly, on the benefit side, when an institution eliminates expenditure, its benefit is financial whereas to the economy it is a gain in resources, say a hospital bed available for another patient.

The study aimed at showing the interdependence of the greatest number of cost factors. It would seem, prima facie, that it ought to be possible to do a comparable retrospective study for people above retirement age. One might assume that the costs of a general screening policy could be assessed fairly easily. Equally, the costs of treatment of ill health at advanced stages can be assessed. If this were pursued further much might turn on the likelihood of detecting and treating incipient disability successfully at an early stage or of preventing it ever arising.

Whatever the shortcomings of models of this kind they take the economically-minded a step further, beyond projection of trends in rises of costs of ill health into the future only to demonstrate their acceleration.

This would be an elaboration in more precise terms of the late Professor Mackintosh's statement that

> "The cost of good home care should be weighed against the high capital and maintenance charges of institutions and, above all, of hospitals."*

Clearly, such home care has implications not only for general practitioners and district nurses, but for a wide range of para-medical, social and housing services required.

One of the principal aspects of human ageing is that of prophylaxis. This includes (a) measures to delay and mitigate the process itself and (b) measures to prevent, or at least delay, the onset and progress of disease.

While work proceeds slowly on the first - principally in the various biological sciences - there is perhaps a justification for optimism in regard to the second. Pensioners themselves have each different ideas of activity in retirement. There is none the less a growing consensus among those who have studied the aspect of health in retirement.

The Kiev seminar of 1963, quoted above, which included some of the leading European gerontologists, geriatricians, and also some administrators of social security, recorded as the participants' unanimous conclusion that

> "No retirement scheme should involve complete cessation of work by healthy elderly or old people. An occupation provided a steady dynamic pattern and its retention supported the tonus of the aging individual and gave pensioners a sense of satisfaction... the important thing was that such work should be adapted to the worker's capabilities, whatever his age."**

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* Mackintosh, J.M. (Professor of Public Health, University of London, 1944-1956): "Implications of the Ageing of Populations", in: "World Health Chronicle" (Geneva, World Health Organisation) 9, 12 (Dec. 1955) pp. 339-341.

** Seminar on the Health Protection of the Elderly and the Aged and the Prevention of Premature Aging. World Health Organisation, 1963, op.cit.

If it is true, as these specialists declared, that occupational activity, mental as well as physical, and adapted to the capabilities of retired people, is "one of the best methods of slowing down the aging process", it leaves unsolved the problem of how this is to be achieved.

Concluding Reflections.

An attempt has been made in this study to bring together and consider a wide range of empirical and analytical work bearing upon problems related to what may amount to a third of the present average human life span. The purpose has been to place in perspective the problems of human ageing and of social provision for it, and to show their inter-relation.

Man, the dominant organism on the earth has been doubling in numbers in periods of thirty years, and now less. Increase in numbers has varied in different parts of the planet. Man has no longer to fear a threat of any other organism as he had during most of his existence as a species.

Infectious disease needs once again not to be the main cause of human mortality. It had become that only when men crowded into cities and slums. Early man had died young, a high proportion of children before they reached maturity. Men died from physical mishap: flood, fire, famine and injuries sustained in battle with other human groups.

In principle man has now the knowledge to control virtually completely the exogenous causes of disease and disability, those due to infection, malnutrition and trauma. The biological sciences have shown solutions of many of these problems.

Knowledge of endogenous, intrinsic types of disease and disability and degeneration progresses slowly. And much of what is known is not widely applied. In the past decades there has been a steady increase in lung cancer, heart disease, drug addiction and indirect effects of alcoholism. The sciences brought together under the umbrella of gerontology are seeking for ways to diminish the incidence of the "diseases of civilisation". Social security and all the specialisations that contribute to it share this concern of gerontology.

Willingness and ability to apply already existing scientific knowledge, by providing clean water and wholesome food, satisfactory sewerage disposal, tolerable housing, immunisation, sulpha drugs, antibiotics, preventive and curative medical care account largely for present differences in age composition and in states of physical health in different parts of the planet.

This study has concentrated on the problems of human ageing and the social provisions for people past middle age, mainly but not exclusively in the so-called "developed" countries. Provision of pensions and other forms of social security is advancing but slowly for the majority of the older people who continue to live in the villages and in open country of areas described as "developing".

If we assume - as every rational human being must - that humanity will not exterminate itself, it is probable that, in future, in all parts of the world larger numbers of people will survive past middle age. Better provisions for a reasonable quality of life for these growing numbers of older people will become imperative.

For the past two centuries and until very recent times a steady improvement in economic "growth" was not only universally accepted as a desirable aim; it was taken for granted that it could be sustained permanently. Few have yet faced the consequences of the fact that this has now ceased and been replaced by economic recession if not yet by universal austerity. Redistribution of incomes becomes therefore inescapable. Social security which bases redistribution of incomes and available resources on equitable principles of need acquires increasing importance.

Societies that may be less wealthy materially can neither tolerate nor afford to have large numbers of elderly and old people in ill health and poverty. We have seen in this study that this is a problem of women more even than of men. Redistribution of resources will require much more thought in analysis and planning.

Yet in this study the questions of ageing and the different needs associated with it have been looked at primarily from the point of view of the human individual: less from the angle of planning. This emphasis has been deliberate. It is all too easy to construct an image of the old and base planning on it. Stereotypes or fixed impressions which conform but vaguely to facts are found not merely in folk beliefs but among some scientists.

The study has shown how cautious it is necessary to be in generalising about age. We have seen that life situations, social relations, personal circumstances and reactions, capacities for adaptation vary widely. There are objective reasons for these differences. Social provision therefore does well to take these into account.

It has not been - and could not be - the objective of this study to indicate simple solutions to the complex questions of human ageing and retirement. The foregoing chapters show gaps and contradictions. Our purpose has been not to hide these but rather to discuss them and to use them to formulate questions that seem significant. Time and continued research may provide answers.

The study has something of the nature of a symposium. But since it is written by one author it may not satisfy all who are specialists in selected phenomena of ageing and social protection. But it will have been worth undertaking if it serves to bring together biological and social thinking, and administration.

The need for resolutely cross-disciplinary study of ageing and retirement is the main unifying thread running through this study. If we wish in the future better to understand the causes and effects of ageing, at the level of the molecule, the cell, the organ, the organism or the population, we must - this is our firm conviction - use not merely a single technique but all those which, from molecular biology to psychology, demography and public administration, enable us to grasp the multiple aspects of the effects of time upon life. Both gerontology and social security bring together workers in a number of specialised disciplines. This should favour their closer cooperation and make it worth the effort to acquire a better understanding of each other's way of looking at common problems.

It has been said that administration is the art of the possible, and science the art of the soluble. Science, it has been argued, was concerned with questions which, at the time, could be asked but which had not been answered: questions that could be answered by appropriate experiments. But in fact science includes the art of the soluble and reaches far beyond it. Both science and administration are grounded in constructive imagination. They can therefore, surely, be reconciled and used to the advantage of the ageing human being who has been in the centre of our preoccupations.

Inter-related concepts could provide a filter in the physicist's sense, by which to consider the facts of healthy ageing and all the sciences and social knowledge capable of contributing to them. A filter would eliminate anything that cannot be related to them.

Ageing requires a realistic as well as a humanitarian and ecological approach. One can be a realist, yet allow one's realism to be tinged with optimism or pessimism. The pessimist may justly decide that the concept of healthy ageing is of intellectual interest but offers no guide to practical action. The optimist may hope that some key process may be discovered and appropriate measures developed to overcome endogenous disease, stress and poverty. If that were the case intervention could be brought to bear more effectively. Our hope is that it will be: so that the old may remain not a class apart but integrated in civilised society.

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